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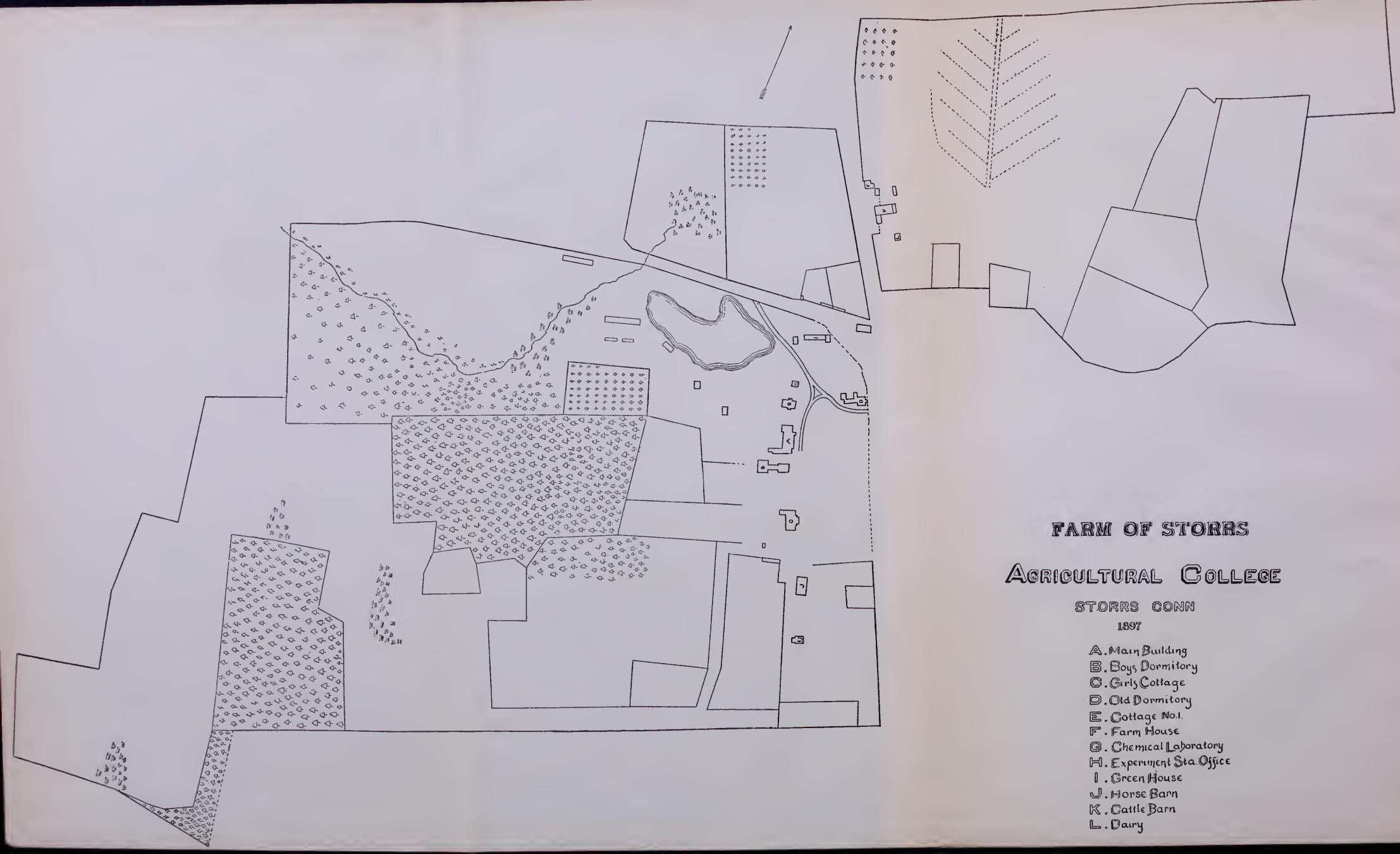
Annual Report
of the Trustees

Storrs
Agricultural
College



Mansfield, Conn.

1898



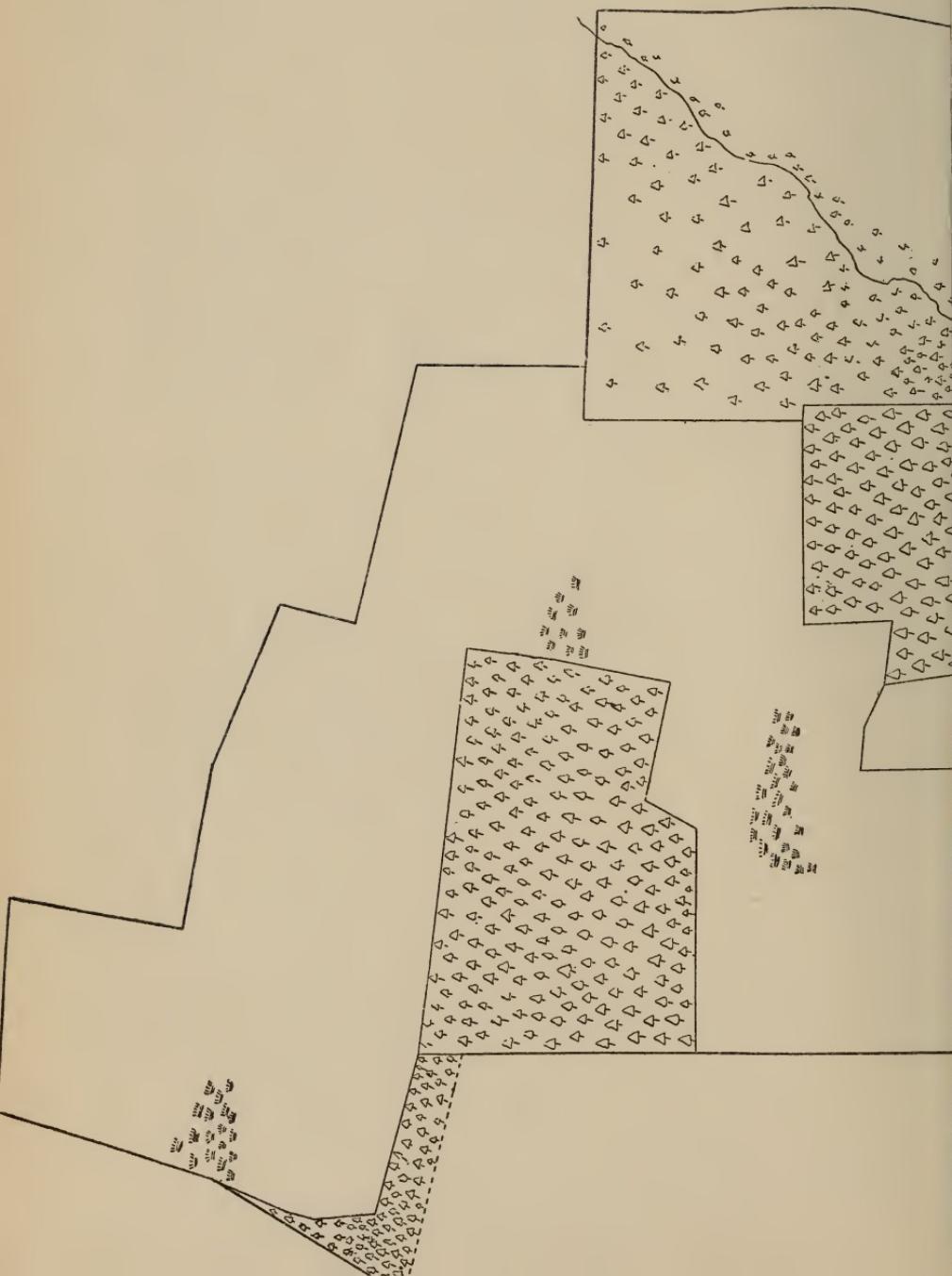
FARM OF STORRS

AGRICULTURAL COLLEGE

STORRS CONN

1897

- A. Main Building
- B. Boys Dormitory
- C. Girls Cottage
- D. Old Dormitory
- E. Cottage No. 1
- F. Farm House
- G. Chemical Laboratory
- H. Experiment Sta. Office
- I. Green House
- J. Horse Barn
- K. Cattle Barn
- L. Dairy



ANNUAL REPORT

OF THE

TRUSTEES

OF THE

Storrs Agricultural College,

AT

MANSFIELD, CONN.

(P. O. STORRS, CONN.)

*For the period embraced within the first day of December, 1897, and
November 30, 1898.*

"The first farmer was the first man, and all historic nobility rests on possession
and use of land." — EMERSON.

PRINTED BY ORDER OF THE LEGISLATURE.

HARTFORD, CONN.:

Press of The Case, Lockwood & Brainard Company.

1899.

TRUSTEES.

HIS EXCELLENCY THE GOVERNOR, *ex officio*, President.

HON. WM. E. SIMONDS, CANTON, *Vice-President*

APPOINTED BY THE SENATE.		Term expires.
T. S. GOLD,	WEST CORNWALL, <i>Secretary</i> ,	1901
HENRY C. MILES,	MILFORD, <i>Treasurer</i> ,	1899
WM. E. SIMONDS,	CANTON,	1901
HON. E. S. HENRY,	ROCKVILLE,	1899
DR. A. HYDE,	NORWICH,	1899
S. O. BOWEN,	EASTFORD,	1901
PROF. S. W. JOHNSON,	NEW HAVEN, <i>ex officio</i> , Director of the Connecticut Experiment Station.	

ELECTED BY BOARD OF AGRICULTURE.

E. HALLADAY, SUFFIELD, 1899

EXECUTIVE COMMITTEE.

H. C. MILES, T. S. GOLD, W. E. SIMONDS.

FARM COMMITTEE.

E. S. HENRY, E. HALLADAY, C. S. PHELPS.

AUDITORS

T. S. GOLD. WM. E. SIMONDS.

OFFICERS OF THE STATION.

EXECUTIVE COMMITTEE.

T. S. GOLD, W. E. SIMONDS,
G. W. FLINT, *President of College.*

HENRY C. MILES, *Treasurer.*

STATION STAFF.

W. O. ATWATER,	Director,
C. S. PHELPS,	Vice-Director and Agriculturist.
F. E. SINGLETON,	Secretary.
FRANCIS G. BENEDICT,	Chemist.
P. B. HAWK,	Assistant Chemist.
CLAYTON F. PALMER,	Assistant Agriculturist.

State of Connecticut.

REPORT.

To His Excellency, GEORGE E. LOUNSBURY, Governor of Connecticut:

The past year has been one of distinct growth and development for Storrs Agricultural College. Its place in the final structure is likely to be more apparent to the general public at a later day than just now. While the institution steadily increases in usefulness and efficiency, the present is essentially a formative period in things physical and in things educational. The earlier years of any institution of learning are beset with difficulties. The difficulties are multiplied in the case of an institution like this, which has largely to blaze its way as to methods, which is hampered by lack of funds for buildings and outfit, and which does not find ready to its hand instructors who, upon the foundation of a liberal education, have built a superstructure of solid learning in agriculture. However, in this last regard Storrs Agricultural College is, in the main, fortunate. It is the earnest and constant wish of the trustees of this institution that all the people of the State might know exactly what is being done at Storrs, and that they might visit it from time to time in numbers sufficient to make the knowledge general throughout the commonwealth of what it is and what it is doing. The trustees beg to express, on behalf of the college, their appreciation of its treatment at the hands of the General Assembly, and to bespeak the kindly continuance thereof.

Very respectfully,

WILLIAM E. SIMONDS,

Vice-President of Trustees.

REPORT OF THE PRESIDENT, 1898.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—I have the honor to submit to you the Annual Report of Storrs Agricultural College of the State of Connecticut for the year ending November 30, 1898.

You are well aware that my official connection with the College began July 1, 1898, and, therefore, my report, as president of the institution, must be brief.

The Faculty.—The only changes made in the Faculty of the College during the period for which this Annual Report is written are three—the election of a President in June of the current year, the election of Professor B. F. Koons as Professor of Natural Sciences at the same date, and later the appointment of Mrs. J. B. H. Ballou as instructor in the Preparatory Department.

The College Course.—At the beginning of the fall term a new schedule of studies was adopted, which will be found in the college catalogue. The regular college course will now extend through four years, for the completion of which a college diploma will be granted; and I would herewith recommend that certificates be granted by the Faculty and Trustees of the college to such students as may not be able, for lack of time and means, to finish the full course, but who shall have become proficient in certain departments.

As the design of the college is to aid young men and women, especially of the rural districts of the State, in securing for themselves better advantages in respect of education, the Preparatory Department receives and prepares students for entrance to the freshman class.

The college recognizes its special function in the realm of

agriculture, and all Natural and Physical Sciences pertaining thereto; and, as English is the only language taught in the schedule, it is considered an important feature of the full college course.

Equipment. — Very little increase can be made in the number of students at the college without the addition of more dormitories, recitation rooms, and laboratories. For instance, the Department of Veterinary Science needs both room and apparatus for a more extended and a more scientific development of its work, not to mention others, to which your attention is directed in the reports of the various departments.

An infirmary for the use of a college is as necessary as is a hospital connected with a military camp, where the sick may be comfortably housed and nursed, and be free from noise and foul air.

The library has been well selected, and is increasing, and that, too, faster than its limited accommodations warrant. A modern library building would secure better facilities for bringing books and students of literature together, and also insure greater safety in preserving a college equipment of inestimable value to the individual and to the State.

We hope that the General Assembly will carefully consider the immediate needs of the State College, and will generously provide for better equipment and facilities for educating young men and women of the State to a more intelligent understanding of their duties as honest, industrious, and patriotic citizens. When the war with Spain was imminent, and the President of the United States issued his call for volunteers, five students of Storrs Agricultural College responded to the call, and were found to be well qualified for official positions. Of these, First Sergeant Willis N. Hawley was taken sick at Camp Meade, and died in the hospital at Philadelphia, November 19, 1898.

When the State shall erect its library building at Storrs Agricultural College, we trust that some memorial will find a place in that structure to show the State's appreciation of those

who are willing to die for her honor, and for the freedom of an oppressed people.

General Remarks. — To say that the college is making progress is unnecessary. All institutions of learning make progress according to their facilities and the demands made upon them. All are most cordially invited to visit the college, to inspect its work, to advise in its government, to suggest improvements, and to study its needs, as often as personal interests will permit.

This invitation is extended to all citizens of the State, and to such others as are interested in the public welfare.

For a more comprehensive review of the year's work, allow me to refer you to the individual reports of the different departments of the institution.

Very respectfully,

GEORGE W. FLINT,

President.

DEPARTMENT OF AGRICULTURE.

To the Trustees of Storrs Agricultural College:

GENTLEMEN: — In my last report I gave a plan of instruction in agriculture. The plan was formulated by a committee of the American Association of Agricultural Colleges and Experiment Stations.

This committee recommended the course for general adoption by the agricultural colleges of the country, in order to systematize and unify the work in agriculture in these institutions.

I repeat the plan this year, in order that the course, as outlined at this college, may be explained more in detail. The general plan is as follows:

- | | |
|--|------------|
| 1. Agronomy, or plant production, | 132 hours. |
| 2. Zootechny, or animal industry, | 162 " |
| 3. Agrotechny, or agricultural technology, . . | 72 " |
| 4. Rural Engineering, or farm mechanics, . . | 60 " |
| 5. Rural Economics, or farm management, . . | 60 " |

The instruction in agriculture, with the exception of subject 4, is divided between the instructor in dairying, Professor C. L. Beach, and myself.

I give herewith a brief synopsis of the work under my charge, and would refer the reader to the report of the instructor in dairying for a synopsis of the subjects taught by him.

Agronomy, or Plant Production. — Under this subject is included (1) the formation of soils, their chemical and physical properties, the improvement of soils by tillage, drainage, irrigation, and manures; and (2) farm crops and their production, which includes the history of our various farm crops, their economic importance, their value as food for both man and animals, and the best methods of planting, caring for, and harvesting them.

Zootechny, or Animal Industry. — This subject includes (1) the breeds of live stock; (2) principles of breeding; and (3) stock feeding, care, and management.

The history and characteristics of the leading breeds of cattle have been carefully outlined by the instructor in dairying, and practice has been given the students in judging and scoring live stock.

The principles of breeding include a study of the laws of heredity, atavism, correlation, variation due to climate, feed, soil, training, etc., the principles of cross breeding, in and in breeding, and selection.

Under the subject of stock feeding, care, and management, the feeding and management of the dairy herd has received especial attention.

The subject includes the composition and digestibility of the various coarse and concentrated cattle foods, the effect of the various food nutrients on the animal system and upon the products of milk and butter. The subject of the general care and management of the dairy herd is given careful consideration.

Agrotechny, or Agricultural Technology. — Under this heading is included the subject of dairying, both class-room study

and laboratory practice, and the course will be found outlined in another part of the report.

Rural Engineering, or Farm Mechanics. — The instruction in the subjects which fall under this heading is given by the Professor of Mathematics and the Professor of Physics. The work in rural engineering includes the principles of road construction, the best materials for road making, surveying, leveling, etc., while the mechanics of farm machinery is covered under the general subject of Physics.

Rural Economics, or Farm Management. — Under this subject is included (1) the history of agriculture; (2) farm management, rural law, and farm accounts. The first of these subjects has been covered by a course of lectures.

Owing to the fact that this study has been transferred from the Sophomore to the Senior year, the course has been dropped for the past two years, but will be resumed again in the near future.

The subject of farm management would naturally include the business operations relating to the farm. Knowledge of the business side of farming can best be acquired by those who are actively engaged in the art.

A person who has made his life work a study of the scientific principles relating to farming can hardly be expected to keep abreast of the business side of farm operations. For this reason it would seem to me wise that a course of lectures by one or more practical farmers be instituted, to cover the ground of farm management and rural law.

During the past year there have been several much needed improvements made in the farm buildings. The increase in the herd has made necessary an enlargement in our stable accommodations. A new barn connected with the stock barn has been built for sheltering the young stock, and for a horse stable. A round stave-silo of about one hundred and twenty tons capacity has been built at one end of the large stock barn. It has been thought advisable to test this form of silo thoroughly, to ascertain its adaptability for use in our climate.

If the silage does not freeze seriously, this will doubtless

prove one of the most economical forms of silo that can be constructed.

The construction of the silo has made necessary a change in the storage-room for manure. The manure shed was formerly connected with the stables at the east end, and at times the odors from the manure made the sanitary condition of the stable unsatisfactory. A new manure shed is now being constructed about thirty feet distant from the stable, and not connected with it.

New and improved machinery for illustration with classes, and for the work of the farm, is being introduced from time to time.

We have been somewhat deterred from purchasing as many pieces of machinery as we consider desirable, by the lack of proper storage room.

It seems wiser to defer the purchase of machinery until it can be properly housed and cared for. I would therefore urge the importance of constructing a tool and wagon house, at a cost not to exceed \$600 or \$800.

At present much of the farm machinery is stored about the main barn, where it interferes more or less with our work.

The crops grown upon the farm are mainly those which are needed by the herd, and such as are wanted in the boarding department.

During the past year the hay crop has been exceptionally good. This was caused in part by the liberal rainfall, and in part by the use of commercial fertilizers. Home mixtures of fertilizers have been prepared under my direction by the Senior class for nearly all our common farm crops.

It is thought that a liberal saving has thus been made to the institution, and that the instruction has been very valuable to the students.

Forage crops, such as oats and peas, ensilage corn, and soja beans, have been grown to quite an extent for the use of the dairy herd. The principal crops grown on the farm for the use of the boarding departments, other than those produced by the herd, have been potatoes, turnips, squashes, and cabbage.

It is our desire to make the work of the farm as largely as possible instructive to the students. It is often desirable to have upon the farm machinery and tools that under many conditions of farm management would not be economical, and it is often desirable to grow crops that would not be profitable on many farms.

It would hardly seem necessary to say that a farm of this kind cannot be expected to show a profit. Instructive and experimental work is always expensive. Only by making these lines of our work the chief aim of the farm can it fill its proper function.

It would seem to me desirable that all of the operations of the farm should be made instructive just as far as possible, and that each student should be given practice in those lines of farm work in which he is deficient.

Respectfully submitted,
C. S. PHELPS.

DEPARTMENT OF HORTICULTURE.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—No change has been made in the class work of this department during the past year. The time now devoted to the various horticultural subjects amounts to nearly one full year of five hours a week, about equally divided between the Junior and Senior years. The equipment of growing and fruiting plants has advanced, so that the time allotted to this department can be almost wholly devoted to the study and handling of such plants, and the value of that time very much increased. The summer term is now the popular one of the course.

The change recently made in the labor system, by which all the students are employed at the same time, has much simplified the management of it in this department, and allows the use of the upper classmen largely as skilled workmen, or as overseers in the various operations in the department, making

the system of more value to the class. Indeed, the labor in this department requiring judgment and some experience has increased until it seemed necessary to adopt some such plan.

The arrangement of the grounds, provided for last year, laid out a large amount of work for future execution. The appropriation set aside for the purpose by the Trustees has been expended. As a result the campus shows the change in a marked degree. The main drive, referred to in my last report, has been opened to the northeast corner of the grounds, and in addition about one hundred rods of other drives have been made in the same substantial manner by excavating and filling in with a foundation of stone. The disposal of the surplus stone on the grounds was considered of quite as much importance as the good building, and much was used that otherwise would not have been taken, which added to the cost of the drives; but as a result all stone walls near or in front of the buildings have disappeared, and much of the space occupied by them leveled and seeded. The road building was all done by outside labor, but the grading and finishing were done by students.

In connection with road building, permanent planting has been begun. During the season several hundred trees have been set out, to which large additions will be made next spring. The stock now growing in the nursery enables us to do this when most convenient, and with very small loss and expense.

Much has been done to improve the grounds; the addition to the campus by the location of the new cottages has much increased the work which needs to be done. Probably this increase will continue for years to come.

The past season has been a very favorable one for the making of permanent improvements, and for the planted crops as well. The exceptional crop of apples on the college grounds certainly goes far to demonstrate that care will make the apple crop a profitable one in this State.

So much of our greenhouse space is now needed to propagate bedding plants for the grounds that but few additions have been made to specimen plants during the past year.

The college made an exhibit at four fairs in different parts of the State during the fall. For this department there were selected and prepared a complete set of the vegetable and fruit products, for each fair, of not less than seventy-five varieties; for, in but very few cases, were any exhibited the second time. Besides the fair exhibits, the Horticultural Department made a fruit exhibit at a meeting of the State Pomological Society, in which it competed and won its share of the premiums. These exhibits are a very satisfactory method of showing what the college is doing.

I have been ably assisted by Mr. Walter A. Warren, appointed one year ago, in carrying out the work of the department; and the work in the greenhouse has been attended to by B. H. Walden of the Senior class in a very satisfactory manner.

All of which is respectfully submitted,
PROFESSOR A. G. GULLEY.

DEPARTMENT OF RHETORIC, ENGLISH LITERATURE, ELOCUTION, AND ETHICS.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—Last year my report gave with exactness and detail my aims and methods. It seemed desirable to place you in full possession of the pedagogic basis from which my teaching was proceeding. The development of the courses has required no departure from the outline indicated; their results seem fully to justify it; and my instruction, therefore, continues to be very similar to that of last year. Since my subjects, also, remain the same, namely, Rhetoric, English Literature, Elocution, and Ethics, I may be allowed to refer you for information regarding all this to my report of last year; and this you will find in your Annual Report for 1897, pages 27 to 39.

This year, consequently, my report is little more than a brief announcement of the different courses given under my instruction, and is herewith submitted.

THIRD-YEAR CLASS. SUBJECTS: RHETORIC AND ELOCUTION.

Rhetoric. Three hours a week.

Two text-books are used in this course, Waddy's "Elements of Composition and Rhetoric," followed by Hill's "Foundations of Rhetoric." The students write constantly, and their writing tests their mastery of the text-books.

Outside reading is assigned from week to week, and each term every student chooses a good book, which he, in writing, critically reviews.

There are lectures. The instructor reads and discusses masterpieces of English. And critical help is given each student.

In this course English is studied about equally for the joy and utility of its mastery, and either to awaken or to deepen the love of good reading.

Elocution. One hour a week, and private appointments with each student.

For the technique of delivery, no text-book is used. ("Practical Elocution," by Fulton and Trueblood, is referred to for special points, but is not bought by the students.) But for the basal philosophy of delivery, the students study Curry's "Lessons in Vocal Expression."

The course begins with the rudiments of Pantomimic training,—education in the language addressed to the eye in public speech. It then takes up vocal training,—education in the language addressed to the ear. And its ultimate effort is to co-ordinate these two great elements of delivery.

Public "rhetoricals," in which every member of the class takes part, are given each term.

The aim of this course is practical, to promote good addresses.

FOURTH-YEAR CLASS. SUBJECTS: ENGLISH LITERATURE,
ELOCUTION, AND ETHICS.

English Literature. Fall and winter terms, three hours a week.

Three text-books are used in this course: "English

Literature" (the Macmillan Company, 1898), by Stopford A. Brooke; "An Introduction to the Study of American Literature," by Brander Matthews; and "From Chaucer to Arnold, Types of Literary Art in Prose and Verse," by Andrew J. George.

The students fix the different periods by identifying their leading writers, and by reading examples of what they have written. And this takes them beyond these text-books.

Notes are made. There are frequent twenty-minute, half-hour, and hour reports. And these reports of the reading done are written in class, and from memory alone.

Each student also chooses one modern writer, studies his life and works, and, on or before March 1st, presents his results in a comprehensive essay. And with this essay is submitted a careful bibliography of the reading done in its preparation.

Sections from the preliminary notes of these comprehensive essays are reported to the class. And careful notes on these reports are made by the students, in order that all may benefit by what each does.

The text-books contain excellent bibliographical material. And the text-books and notes together are intended to furnish intelligent guidance in fuller reading after graduation.

The writing of each student receives careful criticism. But, apart from criticism, the chief office of the instructor is guidance and suggestion. This includes introductory lectures on books and reading, and the continuance of the reading and discussion, begun in the previous year, of English masterpieces.

In this course, English is studied about equally to give increased command of English speech, to give good training in research, and to enrich those resources in the students which, in after years, shall help them to keep the company of the noblest minds.

Elocution. One hour a week.

This course advances from the rudiments of pantomimic training into the more elaborate parts of the language to the eye. In vocal training, also, it continues the cultivation of

the language to the ear. And it undertakes, in the case of each student, to carry the co-ordination of these two great elements of delivery up as far as possible from the lower into the higher forms of address.

Senior Addresses. Three terms. Special appointments.

Each member of a class prepares one address a term, and delivers it in public without notes.

Subjects are chosen which are of peculiar interest to the students themselves, and about which they have acquired some previous knowledge through reading, travel, or study. They are chosen, so far as possible, for their timeliness, and they are treated with especial reference to the audience expected.

The greatest care is used in preparation. The subjects are chosen six weeks before the date of delivery; and both writing and delivery receive the constant criticism and suggestion of the instructor.

The Senior Addresses are of the utmost value, both as a means of discipline in themselves and as giving practical point to the instruction in English and Elocution.

Ethics. Spring term. Three hours a week. A thesis.

Here the text-book is Janét's "Elements of Morals." Muirhead is also read, and other reading is provided and encouraged.

There are written reports. Also, each student chooses a special topic in ethical fact or theory, does a careful piece of research, and, as early as two weeks before Commencement, presents his results in a thesis.

Also, there are lectures as the exigencies of the course either permit or demand.

In this course, Ethics is treated as the science of conduct.

Such is a brief announcement of the courses given under my instruction. A short summary of the variety and character of the training thus afforded may be of interest, and with this I will close my report.

The students are trained from the first in promptness, in neatness, and in precision. They are trained to do for themselves. They are trained in the strength, in the ease, and in

the beauty of good English style. They are trained to read the best, not primarily to read about it. They are trained in research, and therefore in the use of the library. They are trained both in writing and in public address. And they are trained to be intelligent in their conduct.

Yours very respectfully,

RUFUS WHITTAKER STIMSON,

(*Harvard*) A.M., (*Yale*) B.D.

DEPARTMENT OF CHEMISTRY AND PHYSICS.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—The work of the Department of Chemistry and Physics has become well established in the course, and does not vary greatly from year to year. The importance of Chemistry in modern scientific agriculture is well understood. A very large part of the work of the Experiment Stations comes sooner or later to the chemical laboratory for examination by chemical analysis to determine the value of soils, fertilizers, and feeds.

An intelligent understanding of chemical terms and methods of analysis is therefore highly desirable, if not a necessity, to the successful agriculturist of the present time; and with increasing force will this be true of the future. It follows, therefore, that the Department of Chemistry in an agricultural college must take rank among its leading departments. This does not imply that it shall undertake to graduate chemists. That would be chemistry for chemistry's sake, which is not our desire or intention. It may be expressed as chemistry for the sake of agriculture. To this end, students are introduced to the subject early in the course. Both divisions of the Freshman year are taking a laboratory hour once a week.

This experimental work will lay a good foundation for the text-book course in Elementary Chemistry the opening term

of the Sophomore year. This makes real and tangible what otherwise would be mysterious and theoretical. An experimental science should begin with experiments. Accompanying the study of the text-book, there is provided a laboratory hour in qualitative exercises, and a study of reactions. A scheme of analysis is worked out by the student, under the direction of an instructor, purely by the inductive method. The description of each test is in the language of the student himself, made with the reaction before his eyes. No text-book is required for this work, but a large number of text-books by different authors are at hand for reference. This method develops the observing power and the judgment of the student, and makes his own experience the basis of his conclusions.

This method, combined with a method of verification, enables the student to give his attention almost entirely to the tests and to the reactions, rather than to a laborious, time-consuming examination of descriptions of reactions by some author. This requires of the instructor more work at the beginning, but the student very soon comes to rely on his own experience, and, unhampered by the crutches of a text-book, he moves forward with commendable rapidity. The time devoted to qualitative analysis is reduced to a minimum, and the greater part of the work in chemistry is in the field of quantitative analysis.

The Sophomore class have qualitative analysis during the winter term amounting to thirty-six hours, followed by volumetric analysis during the spring term for about the same number of hours. Agricultural chemistry is given in a course of lectures during the spring term of the Junior year. This leads up to a term of quantitative analysis in the fall term of the Senior year. The methods of the official agricultural chemists are followed, in the examination of fertilizers and chemicals, determinations of phosphoric acid, potash, and nitrogen, as found in various commercial fertilizers. A somewhat extended examination of soils is made also by such means as are available on the farm. Analyses of milk, butter, and oleomargarine are also made. Thus has been sketched in outline the course

in chemistry as provided for at present. Very much more time is desirable, but with the limited time allotted this subject the best possible is attempted.

The work in Physics is confined to one term in the Junior year, a forty-eight hour text-book course. It is very essential, however, that more time be given for laboratory work in this subject. During the year a brief course in Meteorology is also provided.

Respectfully submitted,
A. B. PEEBLES.

EXTENSION DEPARTMENT.

The effort to extend the "sphere of influence" of the college by providing courses for home study, has progressed to a point where some judgment may be formed as to its utility.

The schedule, as originally planned, provided for a two-years course. It was contemplated to have a day set apart for the Extension Department during Commencement week. The plan was to have as many as possible of those who had completed the course to come to the college for the day. On June 14, 1898, was celebrated this first Extension Day. Arrangements were made for the conveyance of members to the college from the trains arriving at Willimantic. Most of those in attendance arrived at the college between 11 and 12 o'clock.

A general reception was extended to all by members of the Board and the Faculty at Grove Cottage. A banquet was provided by the young ladies of the college, under the direction of the head of the Domestic Science Department. The printed menu cards contained also the work in Domestic Science as provided in the regular college course for young ladies. Words of welcome were spoken by the President of the college, and Mr. S. O. Bowen spoke for the Trustees. Responses were given by Rev. Mr. Hand of Putnam, Mr. Shepardson of Middlebury, Mr. J. H. Merriman of the Southington Circle, and Rev.

Mr. Mead of Scotland. A procession was formed, and the company marched to the College Chapel, where the following program was presented:

MUSIC	COLLEGE ORCHESTRA
PRAYER	
MUSIC	COLLEGE ORCHESTRA
ESSAY	MRS. ELLEN H. SUMNER Mansfield Center <i>"Better Sanitary Conditions on the Farm."</i>
ESSAY	MR. H. C. C. MILES Milford <i>"Better Fruit for Home Consumption."</i>
SONG	MRS. H. C. C. MILES Milford <i>"Where the Lindens Bloom."</i> (Dudley Buck.)
ESSAY	MRS. ELI BRONSON Middlebury <i>"Literature for the Farmer's Home."</i>
ESSAY	MISS MARY E. HOLT Southington <i>"The Ideal Woman."</i>
MUSIC	COLLEGE ORCHESTRA

The presentation of certificates was made by Secretary T. S. Gold to the following members of the Extension Department, who had completed the course and passed a satisfactory examination:

*Luther B. Ashley,	Scotland.
*Eliza M. Bacon,	Scotland.
George B. Bristol,	Middlebury.
*Bessie W. Bronson,	Middlebury.
Frances E. Bronson,	Middlebury.
Ella E. Collins,	Woodmont.
George A. Griggs,	Phoenixville.
Wakeman B. Hill,	Greenfield Hill.
*Mary E. Holt,	Southington.
*Olive G. Hamlin,	Southington.
Mary R. Igoe,	Middlebury.
*Elmer C. Jewett,	Clark's Corners.
*Lizzie E. Jewett,	Clark's Corners.
Martha E. Judd,	Middlebury.
*J. H. Merriman,	New Britain.
*Harry C. C. Miles,	Milford.

*Mrs. Harry C. C. Miles,	Milford.
Mrs. W. H. Plumb,	Litchfield.
*Grace W. Peebles,	Storrs.
*W. M. Shepardson,	Middlebury.
Julia E. Smith,	Middlebury.
*Ellen H. Sumner,	Mansfield Center.
*George E. Townsend,	Middlebury.
*William W. Townsend,	Middlebury.
Mary R. Woodward,	Amenia Union.
Ellen S. White,	North Granby.
Mrs. Julius H. Yale,	Meriden.
M. M. Frisbie,	Southington.
Sarah E. Frisbie,	Southington.
Jennie E. Shepherd,	Southington.
Samuel W. Smith,	Ansonia.

At the conclusion of the literary exercises the company adjourned to the campus, where the Class tree was planted, an oak; each member assisted in shoveling the earth, and Secretary Gold made a short but very appropriate address. The Class ivy was planted by Mrs. Palmer, and at the conclusion three cheers were offered as a fitting " yell " for the class of '98. This day's exercises concluded the plan as laid out at the opening of this department two years previous. It was an experiment in a new and untried field. The degree of success of the movement would seem to justify a continuance of the work.

In accordance with the proposition to put a library in the hands of circles of ten or more, who had completed the two-year text-book course, we sent out in October two such traveling libraries of fifty volumes each,— one to the Southington Circle, and the other to the Middlebury Circle. The Extension Department has thus instituted the "Traveling Library" for rural communities in Connecticut, a work that has been fruitful of great good in a few western states. New York state and Wisconsin have a large number of traveling libraries.

That you may better understand the nature of these libraries, the list of titles follows:

TRAVELING LIBRARY No. I.

Year-book for 1897,	Dept. of Agriculture.
Principles of Modern Dairy Practice,	F. W. Woll.
Horticulturist's Rule-Book,	L. H. Bailey.
Pruning Book,	L. H. Bailey.
Agriculture, Volume I.,	F. H. Storer.
Agriculture, Volume II.,	F. H. Storer.
Agriculture, Volume III.,	F. H. Storer.
How to Make the Garden Pay,	T. Greiner.
Domesticated Animals,	N. S. Shaler.
Faith and Doubt in Poets,	R. A. Armstrong.
American Commonwealth,	James Bryce.
Labor Co-partnership,	H. D. Lloyd.
Boston Cook-Book,	Mrs. Lincoln.
Household Art,	Candace Wheeler.
According to Season,	Mrs. W. S. Dana.
Familiar Flowers,	F. S. Mathews.
Lessons with Plants,	L. H. Bailey.
Ten New England Blossoms,	C. M. Weed.
Birds of Village and Field,	F. A. Merriam.
Drinking Water and Ice Supplies,	T. M. Prudden.
Charles Darwin,	E. B. Poulton.
Justus Von Liebig,	W. A. Shenstone.
Eye Spy,	Wm. H. Gibson.
With Feet to the Earth,	C. M. Skinner.
Chemistry of Common Life,	J. F. W. Johnstone.
Sea and Land,	N. S. Shaler.
Feeds and Feeding,	W. A. Henry.
Hero and Homespun,	W. M. E. Barton.
Light Side of Science,	Andrew Wilson.
Good Cooking,	Mrs. S. T. Rorer.
Hugh Wynne, Volume I.,	S. Weir Mitchell.
Hugh Wynne, Volume II.,	S. Weir Mitchell.
How to Judge a Horse,	F. W. Bach.
Riverby,	John Burroughs.
American Ideals,	T. Roosevelt.
Economic Entomology,	J. B. Smith.
House Plants,	L. P. Hillhouse.
Story of the Stars,	George F. Chambers.
Testing Milk and Products,	Farrington and Woll.
Beauty of Form,	Steele and Adams.
First Crossing of Greenland,	F. Nansen.
Customs and Fashions in Old New England,	A. M. Earle.

Art Out-of-Doors,	.	.	.	.	Mrs. Van Rensselaer.
History of Connecticut, Volume I.,	.	.	.	.	Benj. Trumbull.
History of Connecticut, Volume II.,	.	.	.	.	Benj. Trumbull.
The Soil,	.	.	.	.	F. H. King.
American Literature,	.	.	.	.	K. L. Bates.
Modern Dairy Practice,	.	.	.	.	Grotenfelt.
Milk: Its Nature and Composition,	.	.	.	.	C. M. Aikman.

TRAVELING LIBRARY No. 2.

Year-book for 1897,	.	.	.	.	U. S. Dept. Agriculture.
Horses and Stables,	.	.	.	.	Fitzwygram.
Our Farming,	.	.	.	.	T. B. Terry.
First Annual Session,	.	.	.	.	Nat. Congress of Mothers
Studio Neighbors,	.	.	.	.	W. H. Gibson.
American Fruit Culturist,	.	.	.	.	J. J. Thomas.
Milch Cows and Dairy Farming,	.	.	.	.	C. L. Flint.
Stock-Breeding,	.	.	.	.	Manly Miles.
Boston Cooking School Book,	.	.	.	.	Fannie Farmer.
How to Know Wild Flowers,	.	.	.	.	Mrs. Dana.
Outlines of Earth's History,	.	.	.	.	N. S. Shaler.
Window and Parlor Gardening,	.	.	.	.	Rost N. Jonsson.
Eating and Drinking,	.	.	.	.	Albert H. Hoy.
Business Hen,	.	.	.	.	H. W. Collinwood.
Poultry Culture,	.	.	.	.	I. K. Felch.
Social Evolution,	.	.	.	.	Benj. Kidd.
Chemistry of Cooking,	.	.	.	.	W. M. Williams.
A-Birding on a Bronco,	.	.	.	.	F. A. Merriam.
Life Histories of American Insects,	.	.	.	.	C. M. Weed.
Year in the Fields,	.	.	.	.	J. Burroughs.
Ye Gentlewoman's Housewifery,	.	.	.	.	M. H. Hooker.
Insect Life,	.	.	.	.	J. H. Comstock.
Bulbs and Tuberous Rooted Plants,	.	.	.	.	C. L. Allen.
Woman's Work in America,	.	.	.	.	A. N. Meyer.
This Country of Ours,	.	.	.	.	Benj. Harrison.
Chats with Girls,	.	.	.	.	Eliza Chester.
Chemistry in Daily Life,	.	.	.	.	Dr. Cohn Lassar.
American Highways,	.	.	.	.	N. S. Shaler.
Practical Poultry Keeper,	.	.	.	.	L. Wright.
Insects Injurious to Farm and Garden,	.	.	.	.	Mary Treat.
Philip's Experiments,	.	.	.	.	John Trowbridge.
The Horse,	.	.	.	.	Wm. H. Flower.
Twentieth Century City,	.	.	.	.	Josiah Strong.
Procession of the Flowers,	.	.	.	.	T. W. Higginson.

Standish of Standish,	Jane G. Austin.
Betty Alden,	Jane G. Austin.
Fertility of the Land,	I. P. Roberts.
Rescue of an Old Place,	Mary C. Robbins.
Vegetable Gardening,	Samuel B. Green.
Evolution of Horticulture in New England,	D. D. Slade.
Plant-Breeding,	L. H. Bailey.
Garden Making,	L. H. Bailey.
Bird-Ways,	Olive T. Miller.
Chemistry of Dairying,	Harry Snyder.
Dust and Its Dangers,	T. M. Prudden.
Story of the Solar System,	George F. Chambers.
Story of the Earth in Past Ages,	H. G. Seeley.
Citizens in Training,	Amos R. Wells.
Flowers: How to Grow Them,	Eben E. Rexford.
Biggle Poultry Book,	Jacob Biggle.

We have frequent inquiries from free libraries of the State in regard to suitable books for agricultural communities. This list may be of assistance to such libraries.

The best results have been reached when a number of people interested in home study have organized and held meetings fortnightly or monthly to discuss subjects they have studied. The Secretary of the department agrees to go and assist in the organization of circles whenever ten members are secured.

A very flourishing circle was organized in October at Wolcott, near Waterbury. Mrs. S. E. Garrigus is a prime mover in this effort, and Mr. Arthur J. Pierpont, a graduate of the college, is a leading force. On December 6th a circle of thirteen members was organized at Washington. Mr. Harry Atwood, another graduate of the college, is the efficient promoter of this circle.

The first name was enrolled in the Extension Department September 25, 1896. December 10, 1898, the enrollment reached 262, and the good work seems likely to continue.

Very respectfully submitted,
A. B. PEEBLES,
Secretary.

I DEPARTMENT OF DAIRYING.

To the Honorable Board of Trustees:

GENTLEMEN:— I take pleasure in submitting my report as instructor in Dairying. As an aid to the development of the dairy industry of the State, a short course in dairying was offered last year. This course is designed to meet the wants of young men and women, who, while feeling the need of a better preparation in this line, have not the time nor means to take a regular college course.

Dairying.—Short Course of Study.—This includes a discussion of the nature, secretion, and composition of milk; conditions affecting creaming and churning, handling milk for market, and butter-making; creaming milk by gravity and by separators; washing, salting, working, packing, and marketing butter. Instructor, C. L. Beach. Text-book, Wing's "Milk and Its Products."

Bacteriology.—Study of the size, form, function, and distribution of bacteria; source of milk infection; conditions and precautions necessary to produce certified milk; the role of bacteria in cream ripening, butter and cheese making. Instructor, C. L. Beach. Text-book, Russel's "Bacteriology."

Breeds.—Lectures are given, treating of the origin, development, characteristics, and utility of the different breeds of live stock. Practice will be given in tabulating pedigree, tracing pedigree of noted animals, and judging animals by scale of points. Special attention is given to the study of the form of the dairy cow, and the laws governing its growth. Lecturer, C. L. Beach.

Feeds and Feeding.—Composition, value, and digestibility of common feeding stuffs receive attention. Discussion of feeding standards, the compounding of rations to secure best yields at least cost. Instructor, Professor C. S. Phelps. Text-book, W. A. Henry's "Feeds and Feeding."

Diseases of Dairy Cattle.—The cause, symptoms, remedies, and preventives of the common diseases of the dairy cow will be discussed. Lecturer, Dr. N. S. Mayo.

Milk Testing and Butter Making. — The creamery is well equipped with different styles of separators, churns, butter-workers, Babcock testers, and other apparatus for handling milk and manufacturing butter. From four to five hours of each day, throughout the term, are spent at the creamery in carrying on the ordinary operations, according to the most approved methods.

Dairying in College Course. — The Junior Class, in the winter term, take up dairying, and cover about the same ground in this subject as outlined in the short course, with the exception that much less time (four and one-half hours a week) is devoted to practical work. This time is altogether too short, and I would suggest that dairying be made an elective study for one year, so that those especially interested in dairying may have opportunity to become more proficient in this line of work. Fifty-four hours may give one some idea of the routine work of the dairy, but the time is too short for efficient training.

The supervision of the herd has been one of my duties. The milking, care, and feeding of the stock has been done almost entirely by student labor. This furnishes a certain amount of instruction, and gives employment to several boys anxious to pay their way through college.

The past year a record has been kept of each individual member of the herd as to the amount of food consumed and product returned. This has necessitated weighing the hay, silage, grain, etc., to each cow for each feed.

The milk has been weighed at each milking, samples taken frequently, and the per cent. of fat determined by the Babcock test. From this the pounds of fat and butter were computed. Upwards of 70,000 weighings were taken and recorded during the year.

This work was undertaken, primarily, to demonstrate the relation between form and function of the dairy cow,—to show the form or type of the cow that produces butter at the least cost per pound, and returns the most net profit. This record makes the herd of great value to the student in the study

of dairy form. For this purpose the herd is admirably adapted, consisting, as it does, of registered Jerseys, Guernseys, and Ayrshires, of different types, some good and some poor.

I herewith submit the finding of this herd for one year (six-weeks record being estimated in order to complete the year). This record includes all the cows in the herd, except five heifers with first calf, that have made some growth:

Number of Cow.	Milk yield 1 year, lbs.	Butter yield 1 year, lbs.	Cost of feed 1 year.	Net profit.	Cost of 1 lb. butter, cents.	Cost 100 lbs. milk, cents.
<i>Average of herd, . .</i>	5,707	310	\$40.91	\$14.98	13.2	.71
<i>Persistent milkers, with spare, deep bodies.</i>						
1	8,445	506	48.80	42.28	9.6	.55
2	8,563	466	44.43	39.50	9.5	.52
<i>Average, . .</i>	8,504	486	46.61	40.89	9.55	.54
<i>Beef Type.</i>						
1	3,152	170	32.78	2.18	19.2	1.04
2	4,000	269	40.77	9.65	15.1	1.02
3	3,826	172	35.05	4.09	20.3	.92
4	5,069	276	46.21	3.47	16.7	.92
<i>Average, . .</i>	4,012	221	38.70	1.21	17.8	.96
<i>(Dairy Type), spare with deep bodies.</i>						
1	5,239	357	40.21	24.05	11.2	.76
2	5,764	310	35.73	20.07	11.5	.62
3	5,095	335	38.48	21.82	11.4	.75
4	6,489	357	42.40	21.80	11.8	.65
5	4,749	337	40.14	20.52	11.9	.84
6	4,556	294	35.87	17.05	12.1	.78
7	7,236	327	42.65	16.21	13.	.58
8	6,863	358	43.98	20.46	12.2	.64
9	8,478	370	47.41	19.26	12.8	.56
10	5,539	319	40.49	17.01	12.6	.73
11	5,701	290	43.53	10.60	15.	.78
12	5,038	287	43.13	8.53	15.	.85
<i>Average, . .</i>	5,897	328	41.08	18.31	12.05	.69
<i>Spare, but lacking depth.</i>						
1	5,597	238	39.22	3.62	16.5	.70
2	4,999	273	37.59	11.62	13.7	.75
3	4,990	289	41.75	10.27	14.4	.83
4	7,361	288	41.17	10.67	14.3	.56
5	4,325	250	39.36	5.64	15.7	.91
<i>Average, . .</i>	5,751	277	40.29	9.67	14.8	.70

AVERAGE OF FOUR GROUPS.

	Yield of milk, lbs.	Butter yield, lbs.	Cost of keep.	Net profit.	Cost of 1 lb. butter, cents.	Cost of 100 lbs. milk, cents.
<i>Spare, with deep bodies, persistent milkers,</i>	8,504	486	\$46.61	\$40.89	9.55	.54
<i>Beef Type,</i>	4,012	221	38.70	1.21	17.8	.96
<i>Spare, but lacking depth,</i>	5,751	277	40.29	9.67	14.8	.70
<i>Spare, with deep bodies,</i>	5,897	328	41.08	18.31	12.5	.69

AVERAGE OF BREEDS.

	Yield of milk, lbs.	Butter yield, lbs.	Cost of keep.	Net profit.	Cost of 1 lb. butter, cents.	Cost of 100 lbs. milk, cents.
<i>Jersey,</i>	5,962	368	\$43.42	\$22.90	12.2	.73
<i>Grades,</i>	5,550	308	40.58	15.02	13.6	.73
<i>Guernsey,</i>	5,250	298	41.63	11.99	14.2	.78
<i>Ayrshire,</i>	7,065	267	40.71	6.91	15.9	.57

The prices charged for different foods were as follows:

<i>Hay, per ton,</i>	\$10.00	<i>Silage, per ton,</i>	\$3.00
<i>Bran, "</i>	14.00	<i>Green feed, "</i>	3.00
<i>Linseed meal, "</i>	25.00	<i>Corn Stover, "</i>	6.00
<i>Cotton seed, "</i>	22.00	<i>Pasture, "</i>	3.50
<i>Gluten, "</i>	18.00		

A dozen oil paintings, twenty-four by thirty-six inches, have been made by Miss Clara M. Norton from photographs of typical cows of each group.

These are used for the purpose of illustration at farmers' institutes, and other meetings, where the herd cannot be shown.

Very respectfully,
CHARLES L. BEACH.

DEPARTMENT OF NATURAL SCIENCE, POLITICAL ECONOMY, AND CIVICS.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—In accordance with the schedule of classroom work, which you will find elsewhere, it is my privilege to give instruction in the following subjects:

Zoölogy.—This subject is taken during the Senior year, and covers the whole of the animal kingdom. Owing to the arrangement of the course, it is begun with the study of Entomology during the summer term, the season when the work in this important subject may be pursued with the best results.

Conditions could not have been more propitious for good work than they were during the past summer, for, surrounded as we are by orchards, gardens, open fields, and woodlands, there is no lack of material, nor of most instructive object lessons from the omnipresent destructive insect pests.

While considerable attention is given to the anatomy and physiology of insects, their classification, etc., special stress is laid upon the study of the injurious and beneficial species; and, where it is possible, the finding of them in all their stages of insect life,—egg, larva, pupa, and adult; where the eggs are laid, at what stages of the insect's life its mischief is done, what it destroys, and how its ravages may be checked.

The following are some of those studied during the past summer, upon many of which the students were asked to prepare brief papers, to wit:—asparagus beetle, rose beetle, potato beetle, apple-tree borer, codlin moth, apple maggot, army worm, cut-worm, plum curculio, apple curculio, tent caterpillar, elm-leaf beetle, canker worm, squash bug, celery worm, cabbage butterfly, cucumber beetle, peach borer, pea weevil, bean weevil, wire worm, tomato worm, tobacco worm, buffalo beetle, clothes moth, oyster-shell bark-louse, San José scale, seventeen-year locust, currant worm, plant lice, and the honey bee.

The students were also required to make collections of in-

sects, particularly the destructive kinds, and, where it was possible, a "biological collection," showing all four stages of the insect's life — egg, larva, pupa, and adult, with samples of its destructive work.

The class of eighteen students made individual collections, ranging from sixty to one hundred and fifty or more species each, and as a whole they were very creditable. As a special incentive to good work in this line, it was announced at the beginning of the term that the three best collections would be given a place in the college museum during the ensuing year. In this competition E. C. Welden won first place, A. F. Green, second, and F. D. Clapp, third.

When it is remembered that the insect world includes over two thousand species, and that of these about one hundred and sixty species attack the apple in some form, root, stem, foliage, or fruit, that the peach has some thirty enemies, the pear forty, the plum nearly fifty, the quince about ten, the cherry forty-seven, the strawberry twenty-five, the grape over sixty, and thus on through the list of grasses, grains, vegetables, ornamental and forest trees,— then we begin to appreciate the large place this subject should have in a course of instruction at an agricultural college.

The arrangement of a summer term in the Senior year of the college course was an important change in the curriculum, which a trial of four years fully justifies; for by it an immense advantage is gained, not only in the study of insect life, but horticulture and agriculture make great gains as well; and, in addition to insects, I would like to suggest another subject for study during the summer term, namely: Ornithology, especially as related to agriculture. The study of this subject, pursued as it is now in its regular place in Zoölogy, brings it late in the fall term, when such results cannot be obtained as are possible during the summer, when bird life is everywhere abundant and active.

During the fall term, Zoölogy is still further studied, taking up the divisions of the animal kingdom in their order; first the lowest forms of life, then the sponges, corals, the starfish.

group, the worms, shells, crabs and lobsters, fish, reptiles, and mammals, each class receiving as much attention in laboratory work and lectures as time will allow. Laboratory methods are employed throughout this and other courses.

Geology and Mineralogy.—These subjects are studied by the aid of the text-book of that king of geologists, the late Professor J. D. Dana. It was our privilege to spend two years with the author in special study of these subjects, and our unbounded respect for the man, as well as the scientist, enhances the appreciation of his book, the recent revision of which was well advanced at the death of the author, and completed by Professor William North Rice.

In Geology, the general principles of the subject are studied,—the character of the earth's features, kinds and sources of materials, the geographical distribution of life, coal beds, peat formations, coral reefs, chemical action of the air and water, the atmosphere as related to Geology, freezing and frozen waters, glaciers, icebergs, the formation and transportation of soils, heat, its sources and effects, volcanoes, mountain making, earthquakes, formation of veins, review of the animal and vegetable kingdom as related to Geology, minerals and rocks, their composition, origin, and uses; and out of the twelve hundred and over of minerals, and the large number of rocks, the more common are selected for special study, and the students are directed to make a collection of each, such as will be representative of those found in the State; and a familiarity is thus gained that will enable them to recognize and name at sight.

Owing to the limited time given to the subject, Historical Geology has been taught by a course of lectures, calling to my aid the lantern and slides to a considerable extent to illustrate the subject under consideration. More time and some additions to our equipment are needed to give this very important subject its due place in the course.

Besides Entomology, Zoölogy, Mineralogy, and Geology, it has fallen to my lot to teach Civil Government and Political Economy. In the former, general principles are taught. The

state, the government, and their functions; forms of government, citizenship, constitutional government of the United States, the history of the Union, the different departments of the Federal government, and their functions; a critical study of the Constitution of the United States, also of Connecticut; the relations of the Federal and state governments,—are some of the subjects receiving attention. The study is one that is likely to show marked influences in the development of the true spirit of citizenship among the students,—a spirit of loyalty to state and nation,—and is usually much enjoyed by those who take it.

Political Economy.—This subject is studied, not upon the narrow lines of the partisan, but in the broader spirit of the times.

The subjects to which we give attention are wealth, production, labor, capital, value, money, paper money, bimetallism, home and foreign trade, demand and supply, cost of production, credit, interest, distribution, wages, rent, taxation, national debt, banking, free trade and protection, labor problems, socialism, etc. None of these subjects is treated from the partisan's standpoint, but where, as in the case of free trade and protection, they have been dragged into politics, we study the arguments for and against both sides of the subject, and there leave it, allowing the student to draw his own conclusions.

Very respectfully submitted,
B. F. KOONS.

DEPARTMENT OF MATHEMATICS, HISTORY, AND DRAWING.

To the Board of Trustees:

GENTLEMEN:—It is my purpose in this report to present a review of my work during the past year, and to give an outline of the course in Mathematics as it is now being pursued.

My classes completed the work that was planned for them,

but, in some cases, with considerable effort, because, the subjects being comprehensive and the recitation periods limited, the lessons assigned were necessarily long. This difficulty has been obviated by a small increase of the hours given to those subjects and by the augmented efficiency of each new class in a given study. The parts of the curriculum with which my teaching is concerned are Mathematics, Bookkeeping, Free-hand Drawing, and History.

Mathematics. — Arithmetic. Freshman class. This class came to me during the spring term, and the subjects treated were chiefly fractions, reduction of denominate numbers, and percentage. Square root and cube root were not taken up, for they are better understood from the study of algebra, and likewise mensuration from the study of plane and solid geometry. Extensive practice in addition was given, both from examples in the text-book and by slips which were made especially for this exercise. Half sheets of ledger paper were ruled into six columns and in each column were written twenty figures. The task was to add the twenty numbers, of six figures each, without error. Although addition is a primary and a simple process, it surpasses any other one principle in the frequency with which it is used, and in its importance practically; and yet it is the one process in which many students are likely to fail, and a correct method fails to produce a desired result because of an error in addition. Failures of trial balances and errors in computing areas during the past year were due ordinarily to wrong additions. Adding correctly is more a habit than a reasoning process; and competency here is acquired only by persistent practice. Considering the whole of our mathematical course, and also the dependence of each part, near or remotely, upon this fundamental process, ability to add quickly and correctly should be sought even at the expense of a considerable outlay of time.

Geometry. — Freshman class. At the beginning of the winter term this class abandoned its elementary text-book, began Pettee's Plane Geometry, and carried it through the college year with faithful application. This new text-book

(published in 1896) has given an impetus to the study. Its essential improvement on standard books of past years is its vivid and comprehensive system of graphic representations of the hypotheses of theorems. The usual mass of explanatory matter is eliminated from every demonstration, and a careful observation of each figure shows what is "given," and thus renders easier the comprehension of the essential parts of each proposition. I have used the deductive method chiefly, and have supplemented this work by classroom exercises in construction. Blackboard work in construction and demonstration has been especially helpful to beginners.

Geometry. — Sophomore class. This class pursued approximately the same course as the Freshmen, reaching a point slightly in advance.

Algebra. — Sophomore class. This class completed the subjects, as in previous years, to Quadratic Equations, and during the spring term studied Simultaneous Quadratics, Ratio and Proportion, Variations and Progressions, the Binomial Theorem, and Logarithms. The theory of square root and of cube root was discussed at length, and practice in the use of logarithmic tables was given, together with their applications to compound interest, annuities, roots, and powers. This class, numbering thirty students at the beginning of the college year, was of such size that it was not practical to have each member of it recite daily. About fifty minutes of each hour were given to the explanation of some algebraic principle and to the answering of questions on the same. The remaining minutes were spent in working examples selected to test each student's comprehension of the subject. Each day's task consisted of the solution of numerous examples to be brought to the recitation. These were looked over outside of class, and in some cases returned with errors marked. Any fault common to all was pointed out in the class. Individuals soon corrected their bad methods, or so accentuated their mistakes that they found it necessary to come to me for private help. In this class, as in all others, I have encouraged and aided students in this way.

Solid Geometry.—Junior class. This subject is studied during the fall term only; my last report covered last year's work. The class this year (1898) has studied the theorems of lines and planes in space, and polyhedrons, the same as last year, and, in addition, the cylinder, the cone, and the sphere. Examples in computing areas and volumes of bodies have been solved, and practice in constructing spherical triangles upon slated globes have been given in class. Spherical Geometry applies in our work to Surveying and Mensuration, and we expect to show its application to Navigation and to Astronomy. Solid Geometry was mastered by this class with greater ease and proficiency than Plane Geometry.

Trigonometry.—Senior class. The functions of angles, the derivation of formulæ, and the solution of right and oblique triangles comprised the line of study. This class had studied algebra only a very little, and hence was embarrassed by the substitutions and the solving of simple and quadratic equations. Those who had studied algebra before entering were most proficient. The use of logarithms was taught and numerous examples were solved.

Surveying.—Senior class. In the spring term this class, in two divisions, spent two hours a week in out-of-door practice in triangulating, both for locating points and for finding the areas of plots; in getting areas by the method of latitudes and departures, and in leveling for roadways and drains. One hour per week in the classroom was applied to plotting and computing; and another hour in the study of roads, including road materials, cost of construction, laying out new roads, changing old ones, and drainage. Twelve road pamphlets of the United States Department of Agriculture were read by individual members and reported at meetings of the class. In this connection, one Saturday morning was given to observation while riding over an improved road near Eagleville. An account of the improvements and statement of the cost were furnished by Professor Peebles, who accompanied us. The class ran a line of levels over a hill by the old route and back by the improved road. The difference between the two in

grade and in rise and fall, when thus reduced to a mathematical basis, was obvious. It is hoped that after graduation our students will retain an interest in the "good roads movement." Some have already done so.

Equipment. — This consists, for surveying, of one engineer's transit, two Y levels, two plain compasses, one compass with telescopic sight, two leveling rods, four chains, and one steel tape. As an aid to the study of Plane and Solid Geometry, the college purchased recently a set of thirty-nine models illustrating the essential principles in Mensuration. A few other models were carefully made by students, and will be kept for future use.

Revised Course. — The study of Mathematics leads to one or more of these three ends, namely: to acquire knowledge to be applied practically in some trade or profession, to accustom the mind to the relation of values as a foundation for the careful observations and measurements to be made in scientific work, and to train the mind itself to accurate and logical processes of reasoning. Any or all of these ends are acquired by the discipline necessary in following a more or less lengthy, and oftentimes complicated, process of reasoning. This subject, to a greater degree than most others, has an order of development which is advantageous; and in arranging my work I have placed my subjects in their logical order, and one after another without intermission through the first three years of the college course.

First Year: Algebra, four hours a week, three terms.

Second Year: Plane Geometry, four hours a week, three terms.

Third Year: Solid Geometry, three hours a week, fall term. Plane and Spherical Trigonometry, three hours a week, winter term. Surveying and Road Making, three hours a week, spring term.

This arrangement places Mathematics earlier in the course, emphasizes somewhat the intellectual discipline which these studies afford, leaves more time than before for the last and most efficient year of the course, and is suited to the needs of

the constantly increasing number of students, who come to us after one or more years of high school study.

Miscellaneous Subjects.—Bookkeeping, Junior class. Fall and winter terms, one and one-half hours a week. After a visit last year to a large business college, and an inspection of its methods, I decided on the use of the tablet method this year. This new and rapidly spreading plan of teaching bookkeeping aims at familiarity with business forms; also through repeated practice in journalizing and posting the ledger, drawing of checks, drafts, and notes, making of bills and rendering of statements of the condition of the business. Full directions for every transaction are written on a tablet from which the leaves are torn, and, after being read, destroyed. All work is done in class. Interest, ease, and efficiency characterize this class.

Free-Hand Drawing.—In January of this year, it was thought desirable to introduce this subject into the regular course, and the college permitted me to select the equipment, which consists, with recent additions, of forty-eight drawing plates, eighteen plaster casts, twenty-four standards, and thirty-four drawing boards. During the winter and spring terms the classes met in Grove Cottage, but in the fall we changed to the basement of the old dormitory, where there is a northern light and windows so arranged that distinct shadows may be thrown upon the casts. Although this place serves moderately well, there is need, in order to make the instruction more efficient, of a room constructed with especial reference to light. Form and light, shade and elementary perspective are studied. The principles inculcated here are intended for use in drawing in other classes,—Botany, Horticulture, and Entomology especially. Every class now in college, except the Sophomore class, has had one term's work. A little pen-and-ink drawing was done, and fifty of the best drawings were placed on exhibition in the college reading room at Commencement time. During the summer term, Miss Clara M. Norton of Bristol continued the drawing from the casts and took up Botanical and Entomological forms. It seems to me

appropriate in connection with this subject to suggest to the Board of Trustees, as an aid to drawing, and as another refining influence in college, the propriety of purchasing suitable pictures for the walls of the institution.

General History.—Two hours a week, fall term. Sophomore class. The course thus far has comprised the “Eastern Nations and Greece.” The class has followed Myer’s General History, but in my comments on these periods I have drawn from every source in our library, which has been of very great service. We have studied the various phases of national activity,—wars, religion, literature, sculpture, architecture, and, in a limited way, the philosophy of History. The class spent part of one Saturday in examining the statuary, coins, and tablets in the Slater Memorial Building, Norwich. This collection is rich in Greek sculptures. My aim has been to show how much our own national conditions are produced and explained by the institutions of former peoples; to impart that general information which is necessary to an adequate understanding of the magazines, papers, and other literature of the present time; to expand the sympathy, and to arouse the interest of the student. Much will be forgotten, but the course will have served its purpose, if it shall lead any in their leisure hours, and perhaps times of rural isolation, to find pleasure at their own firesides in contemplating the thoughts, motives, deeds, and influence of great men. The college possesses one hundred and eighty-five lantern slides useful for this course.

In reviewing the year that is past, it comes to me with ever-increasing force that growth in all things is gradual,—in the student, almost in direct proportion to the effort he makes. The beginning of my second year, the advancement of former students to new classes, the recollection of their talents a year ago, and the reading of entrance papers, prove the growth,—the inspiration and the solace of the teacher’s life.

Respectfully yours,
CHARLES AUGUSTUS WHEELER, (*Yale*) B.A.

DEPARTMENT OF ENGLISH AND HISTORY.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—The prescribed course of study has been lengthened to four years. A change has also been made in the Freshman class. It is now in two divisions,—A and B. The former is a part of the regular course. The change in the course has made the work of the two lower classes, in two of my subjects, nearly the same. Another year, the second-year class will be able to do more advanced work.

My instruction is confined to the Sophomore class, and the A division of the Freshman class. The subjects taught are United States History, English, and Elocution.

History.—Class, Freshman A. Two hours a week. In the new schedule history will be completed by the A division in the first year.

Montgomery's "Leading Facts of American History" is the text-book used. Information from reference books is brought into the class, both by the students and teacher. The students are also encouraged to read historical novels, and give a synopsis of their readings to the class. This material is sometimes given in writing, and good English is required.

English.—Classes, Sophomore and Freshman A. Each five hours a week. As a body, the entering class shows a greater deficiency in English than in any other subject. The new course, therefore, has given more time to that subject in the lower classes.

Both English and Elocution are here included under the name English, and are thus scheduled for five hours a week.

English Proper.—Sheldon's "Advanced Language Lessons" is used for a text-book. In this, technical Grammar and Composition are developed side by side. The students bring written work to the class at every recitation. Some of these are exercises or compositions from the text-book; others are descriptions of places or incidents which have come under their direct observation; and still others are synopses of stories from books or magazines. In all written work, good English is required.

The class hour is used, sometimes for English, sometimes for Elocution, but more often for both. In English it is used in preparation for future writing, either by criticism of papers, or by discussion of new matter.

Elocution. — As remarked above, elocution is included in the five hours given to English.

The subject is taught in two ways,— by class instruction and by individual instruction. For the former, Townsend's "Elocution and Action" is used; for the latter, selections for public "rhetoricals." These rhetoricals are given once every term by each class.

The instruction in Elocution is given with a view to laying a good foundation for future instruction in the same line, with special reference to articulation, phrasing, and appreciation of the author's feeling, and also of self-possession and bearing before an audience.

Although this work is new to these classes, the improvement both in speech and manner during this term is encouraging. The work is elementary, but it is hoped that by commencing thus early in the course there will be time for more thorough and comprehensive training in Elocution before graduation.

I am co-operating with Professor Stimson, not only in Elocution, but also in English, so that our instruction shall form one progressive whole.

Respectfully submitted,

L. J. BARBER.

DEPARTMENT OF BOTANY AND MILITARY SCIENCE.

To the Honorable Board of Trustees:

GENTLEMEN: — As now planned, the course in Botany includes the following work:

Freshman Class, A Division. — This class has five hours a week throughout the year; this includes Structural, Physio-

logical, Analytical Botany, and the preparation of a herbarium of at least fifty specimens of our native wild plants.

Freshman Class, B Division. — This class also receives instruction in Botany three hours per week through the year.

Senior Class. — The Senior class will have one term of four hours a week in Cryptogamic Botany, including fungous diseases of plants.

Text-Books. — For the Freshman classes, Elementary Botany with Spring Flora, by Kellerman, is prescribed as a text-book, and Practical Studies in Elementary Botany, by Kellerman, as an observation note-book. These are the latest and best adapted to our needs. Gray's Manual of Botany is recommended for analytical work.

The college library is provided with many of the best Botanical works, both scientific and popular, to which the students are directed.

Botany being a study of plants, plants themselves are studied instead of the works and statements of books. Students are taught to observe for themselves the facts, which they then compare with the statements of the text-books or look up more in detail in the works for reference.

The room which is used as a Botanical Laboratory is also used by other departments, and this is unfortunate, for the best results cannot be obtained in Botanical work without a laboratory that can be used exclusively for Botanical purposes.

Military Science. — The work in the Military Department is essentially the same as outlined in my report of last year, except that the inspection of dormitories has been given over to this department.

Military drill has been given three times a week, and all male students are required to attend. The cadets have shown an interest in the drill, their attendance has been excellent, although mumps and measles in the spring and fall terms caused a good many absences.

Inspection of rooms occurs daily except Sundays, the Saturday inspection being known as weekly or military inspection, and the others as daily inspection. At daily inspec-

tion the rooms are required to be neat and orderly. At weekly inspection the rooms must be cleanly swept and dusted and everything in good order. Cadets must be in their own rooms, in uniform, during the time for inspection. Failure on the part of the cadets to comply with the regulations incurs demerits, and any cadet incurring five demerits is assigned to extra drill on Saturday.

During the year some advancement has been made in the Military Department. Last spring two new Winchester repeating rifles were purchased, together with targets and incidentals, for target practice. These rifles are of a very recent model, shooting the most improved ammunition, and thereby giving the students an opportunity of becoming familiar with the working of a repeating rifle, with the action of smokeless powder, high velocity cartridges, and of becoming somewhat proficient in target shooting. Some of the cadets have made very good scores.

This fall seventy breech-loading Springfield cadet rifles were purchased, the old muzzle-loading muskets being exchanged in part payment. These breech-loading rifles, while not strictly new, are adapted to the Manual of Arms now in use by the United States Army, and will answer our purpose as well as far more expensive arms.

The greatest need of the Military Department now is a drill hall. This could also be used as an auditorium for Commencement and other public exercises, where a large hall is needed. At present we have no hall large enough to accommodate the friends of the college at Commencement. The only place for indoor drill is the basement of the chapel, unless the chapel itself be used. Neither the basement nor the chapel is adapted to drill purposes, and it is not possible in them to give to the drill the variety necessary to prevent its becoming monotonous.

Respectfully submitted,

HENRY A. BALLOU.

DEPARTMENT OF DOMESTIC SCIENCE.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—The work in the Department of Domestic Science has been carried on, during the school year of 1897-98, according to the plans outlined at the beginning of the fall term of 1897. We have not pursued the theoretical line of study so much as was at first intended, for lack of time. We deem it wiser to shorten the study of theory, rather than the practice, as the former may be pursued later by the students through reading.

In the few hours given to practical instruction in cookery, sewing, laundrying, dressmaking, and other household affairs, we cannot hope to graduate skilled and experienced cooks, dressmakers, or laundresses, but we do lay a good foundation upon which every student may build for herself; and with a thorough knowledge of the fundamental principles, which underlie all branches of Domestic Economy, she will be able with additional practice to reach that state of perfection which untrained housekeepers are able to reach only through years of toil and hard experience.

Our young women, when preparing food, realize that they are performing chemical experiments, and, being familiar with these processes, know what results are to be obtained, and how to obtain them.

When the work in this department is completed, every student will have acquired the knowledge which will enable her to manage a household systematically, intelligently, skillfully, and successfully.

In dressmaking, the selection of materials, in harmony of colors and adaptation to use, the graceful fit of garments, are objects of general study, but none of the details in plain and fine needle work, both in making and mending adapted to the fabrics, in the use and care of articles of dress, in neat and careful laundering of the most delicate fabrics, is overlooked as too trifling for consideration, as these all contribute to that economy and harmony of dress which characterize a person.

of refined taste and judgment. "Let the picture adorn the frame, not the frame the picture."

In cookery, the Junior class put up several dozen jars of canned and preserved fruits, sweet and sour pickles, and several varieties of jelly. They had also two courses in plain and fancy cookery. In the spring term each member of the class planned, cooked, and served a dinner of six courses to four invited guests.

These dinners were practical demonstrations of all the preceding lessons,—marketing, the selection and preparation of food, setting table, waiting upon it, serving and presiding.

In theory, the Junior subject was menus,—estimation of their costs and methods of conducting the general work of a household.

The Sophomore class spent two hours a week in serving, and completed the course as given in Pratt Institute for beginners. In cookery, the Sophomore class followed the work as outlined in the "Boston School Kitchen" text-book. This work was somewhat simple and elementary, but was carefully, thoroughly, and logically pursued with most satisfactory results, which are particularly manifest in the good work of the present Junior class. All this practical work was accompanied by lectures on marketing, selection of food, waiting and serving.

In Theory, lectures were given to all the young women. These lectures included the subjects of Hygiene, Emergencies, Home-Nursing, Chemistry of Food, and the Science of Nutrition. This year we shall continue the theoretical work with lectures upon Prevention and Care of Contagious Diseases, Diet in Disease, Hygienic, Economic Value of our Common Foods, and Dietaries Applicable to Age.

The present Senior Class are devoting four hours a week to dressmaking. From the charts used in the Boston Dress-cutting College, the students draft their pattern. Each student takes the correct measurements of a classmate, drafts, cuts, and makes a waist pattern. Then the waists are so carefully cut and sewed that even upon the first trial they need very

slight alteration. This class will continue dressmaking through the year, and will make their own graduating gowns. The Senior class will study "Home Sanitation" in the spring term, if time permit.

Gymnastics.—The young women give three hours a week to gymnastic exercises. Each student is required to be properly dressed in loose clothing, with a suit of blouse and bloomers, so that the exercises may be taken without restraint in dress. The class in gymnastics includes all the young women of the college, with a few exceptions, and occupies nearly all the floor space in the gymnasium. The exercises include all those prescribed for correcting errors of sitting and standing, walking and breathing. The regularity and care with which this system of gymnastic exercises is conducted, will, in time, widen the chest, increase the lung capacity, straighten the shoulders, and develop all the muscles of the body.

In addition to free gymnastics, the students are drilled with wands and dumb-bells. As yet Indian clubs do not form a part of our gymnastic equipment, but would be welcomed with delight. The students practice also military and fancy marching. The value of this exercise to the student cannot be overestimated, and without doubt has much to do with the good health of the young women.

Boarding Department.—The family at Grove Cottage numbers twenty-two regular members,—fifteen students and seven of the Faculty. We are fortunate in having the continued and efficient services of Miss Mary Edwards. Our aim is to provide the students with good, wholesome, nutritious food in sufficient quantity, served neatly, and with as much variety as our means will allow, at a very moderate price. The board last year, including food, fuel, service, and laundry averaged about \$2.32 a week for each person. The students do all the work except cooking, and are thus able to reduce the amount by fifty cents a week. We have had few cases of illness, and these were not anything serious, although they were interruptions to the regular school work. In order that we may

accommodate transients, it has been necessary to increase our dining-room furnishing.

Respectfully submitted,

MRS. MAUDE WHEELER.

DEPARTMENT OF MECHANICS.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—In presenting this my fourth annual report of the Mechanical Department of Storrs Agricultural College, it is perhaps proper that I should take a retrospective view of the conditions existing in the past as well as to consider those which still exist. I well remember the somewhat discouraging prospect that awaited my advent here, not only in respect of the meager outfit and unsuitable condition of the apparatus designed for use in this department, but also in the presence of several dilapidated old buildings on the campus, and other buildings sadly needing repairs, and the necessity for sanitary improvements, subjects for immediate consideration.

It is hardly necessary to state that each year has witnessed the removal of some old building, the wreck of a former generation, the renovation and general improvement of all the others, and the erection of new buildings that add greatly to efficiency and comfort as well as to the appearance of the place.

The past year has been no exception to the rule of general improvement. I would particularly note the removal of the useless and unsightly old buildings south of Grove Cottage, and the erection of two new cottages, just completed, and now occupied by two of the professors and their families. These new dwellings deserve more than a passing notice on account of their somewhat novel construction. They were built from plans selected by the Board of Trustees, who saw fit to place their construction under the management of this department.

The foundations and first stories are of rough stone taken from the field walls adjacent and laid "rustic" in cement and

lime mortar. All the door and window sills were quarried on the premises and laid with little, and, in some cases, no "dressing." The facings and arches for doors and windows are of brick, made from Portland cement, mixed with sand and gravel, and moulded "rock-face." One of the verandas is of stone and is composed of three arches with parapet above the roof. The other veranda is of stone to the usual height of balustrade, and has five large shingled arches with parapet above the roof. The second stories of both buildings are shingled and left to weather in the natural wood. The interiors are finished in cypress, the hardware being in the latest style of colonial bronze. Both are fitted with a system of sanitary plumbing, and supplied with pure water from our deep well. One is heated by a system of hot water, the other by steam. The building of these cottages has been an object lesson to our young men, and several of them were employed on their construction. They are much admired, and their low cost is a surprise even to those familiar with the building trades. This is but another example of the economy which results from intrusting building operations to the department where they properly belong, as they are then more under the control of your committee, and the work cannot be so cheaply done by outside parties. You may also have the satisfaction that no money has been expended for unnecessary profits.

There is still much to be done to develop the Mechanical Department on educational lines; there is still great need of more new buildings, not only residences, but buildings for general use, to which fact your attention will doubtless be called by others. On the whole, however, I feel that we may congratulate ourselves on the marked improvement made on these lines during the last few years, and indulge the hope that the succeeding years may not be less fruitful of results.

The usual renovating and refitting of dormitories and other buildings was accomplished during the summer vacation, so that at the commencement of the present college year the premises were in excellent order. Owing to the increased number of classes it has been found necessary to make some

improvements in classrooms, which has added to the burdens of the Mechanical Department, as well as to the annual expense.

I will briefly refer to the prospect of having a new system of lighting our grounds and buildings, and a more reliable and cheaper method of raising water from our deep well. These two points need immediate attention.

The past year has been one of profit in practical instruction in Mechanics. Such instruction at Storrs is confined to young men. The Sophomores had a practical course in wood-working, learning to care for and use the various tools that make up the usual outfit of a carpenter shop, where only hand work is done.

The Juniors took a course in Mechanical Drawing, adopting the more practical rules of Geometry with a view to their application in the correct laying out or designing work in the mechanical trades. Many valuable rules were taught that are in common use by workmen in the trades, and not usually found in text-books.

The Seniors were advanced to a course of Architectural Drawing, and each one executed an elevation plan of a modern building. These plans were suitably framed. They also took a short course in iron work, learning to forge, weld, make, and temper steel tools, make and repair chains and other farm implements, etc.

A large exhibit of work done on these lines was arranged for inspection at Commencement, and also at numerous agricultural fairs in various parts of the State, and has elicited much interest and praise. Work in this department has been assigned such time and place as will least interfere with the main issue, which is agriculture in its various branches.

Although we do not turn out mechanical engineers, it is our aim that young men who leave our institution shall have less of that "sublime ignorance" in the use of tools that is so often observed in the average farmer. If we can do this, we have not labored in vain.

Respectfully submitted,
HENRY S. PATTERSON.

GROVE COTTAGE AND DEPARTMENT OF MUSIC.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—Grove Cottage: Last year, during the fall and winter terms, we had thirteen young ladies in the Cottage, but when college closed in June, three had been called home, and only ten remained.

We were very fortunate all the year, and were comparatively free from sickness, with the exception of the measles in the spring term, when two cases developed at the Cottage.

The young ladies take the entire care of the building, and we think it is an excellent training for them. They learn in this way to have a responsibility about everything and take pride in making their college home as attractive and pretty as possible.

We have a few necessary rules, yet we strive to make our young people feel they must do the right thing because it is right, and not because they must do it or suffer the consequences.

The young ladies entertain the young men every Friday evening for a short time, and once a month give a reception to the young men. This feature is a very important one, as it brings our students together in social intercourse and helps them in many ways.

This year has opened very pleasantly with fifteen young ladies. We are glad of the increase, and hope the number will continue to increase until the Cottage limit is full.

Music.—Piano: Last year the progress in our musical department was somewhat impeded by the need of a new piano at Grove Cottage for the young ladies to practice upon. At the close of the winter term a piano was purchased, and we now have a new parlor-grand Miller piano in our Cottage parlor.

About thirty students are taking piano lessons this year, and the interest in this study seems to be increasing, as the majority of students who take lessons appear to be thoroughly in earnest.

We have piano students in all stages of progress, from the

one who is learning his notes to the student who has taken lessons a number of years.

We use a system of marking in lessons on the piano, and thus we do away with careless practice to a certain extent.

The last recital given last year was held in the Cottage parlor on the arrival of our new piano. During the evening a Beethoven Sonata was played, being preceded by a brief paper on the life of Beethoven and the Sonata form. We hope in such ways to interest our students in the best music, and to help them to perform intelligently.

At the beginning of the present school year the need of a new piano for the young men was very apparent, as the piano in the chapel was the only one they had to practice on; therefore, a new upright, "Ivers and Pond," was purchased and placed in a room in the main building.

Sight Singing.—The Freshman class each year are required to take singing for two terms, at the end of which time they can sing simple pieces by note. This course can be elected by any other class in the college.

Each term a recital is given by the piano students, and, if the class in singing has progressed far enough, it is assigned to a place on the program. This gives the students confidence in playing before others, and they have something definite for which to work.

This course in music we consider of importance equal to any course in the college curriculum; and it is with pleasure I write the report of even a little progress in that department.

Respectfully submitted,

LULIE G. LINCOLN.

DEPARTMENT OF VETERINARY SCIENCE AND PHYSIOLOGY.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—I have the honor to submit the following report for the year ending November 30, 1898.

The subject of Veterinary Science has been pursued in the same general manner as formerly. The work began in the Sophomore and continued through the Junior and Senior years. I have met each class twice a week upon an average, the amount of time devoted to the subject being equivalent to about five hours per week for three terms of twelve weeks each. The course begins with a study of comparative anatomy and physiology, followed by veterinary medicine, the common drugs and remedies used in treating ailing animals, and how administered.

The common diseases and injuries to which domestic animals are subject are described, and methods of treatment given. Especial attention is given to remedies within the reach of ordinary stock owners, to good nursing and the prevention of disease by proper hygiene. Surgery, veterinary obstetrics, and examination of horses as to soundness also receive special attention.

An Azoux horsikin, which is dissectible, showing the various structures of the body and organs in position, a collection of anatomical specimens, showing healthy and diseased structures; skeletons, charts, and, as far as possible, living animals suffering from injuries and disease, furnish means of illustration. To each class, also, is given an opportunity to dissect a horse.

Instruction in Veterinary Science is imparted by means of lectures.

Human Anatomy and Physiology. — This subject has occupied two hours a week for the Sophomore class, and three hours a week for the Freshmen, during the winter and spring terms, besides one and one-half hours each week for laboratory work for the Freshmen. The total time given to this subject is equivalent to five hours per week for twelve weeks besides the laboratory work.

The course consists of a study of the animal cell as the unit of structure of the body, the various tissues of the body, bones, muscles, nerves, blood vessels, and organs,—their structure and uses. The conditions which favor the healthy development and action of the various parts of the body receive due at-

tention. "Comparative Anatomy and Physiology" is studied to a limited extent, and affords preparation for stock-breeding, zoölogy, and veterinary science. Martin's "Human Body" is used as a text-book. Skeletons, an Azoux manikin, and the study of various organs and structures of the body with a microscope afford the means of illustration.

I also have charge of the horse barn, containing six horses and equipment. The hauling of freight from the station and necessary driving for faculty and students has furnished abundance of work for the horses. Horses are let for hire to members of the faculty for personal use.

I have treated the ailing stock upon the college farm, arranged and labeled the specimens in the veterinary museum, and greatly increased the number of specimens; assisted in organizing a Natural History club among the faculty and students, for the purpose of promoting the study of Natural History. In addition to miscellaneous college work, I have delivered nine public addresses before farmers' institutes, granges, and similar organizations.

Respectfully submitted,

NELSON S. MAYO.

PREPARATORY DEPARTMENT.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—At the beginning of the fall term the Faculty thought it best to form a B division of the Freshman class, thus establishing a Preparatory Department for those who come here deficient in the common school branches.

At present there are twelve students in this department, with which my work is as follows:

Arithmetic.—Five hours a week. Walsh's Grammar School Arithmetic is the text-book used by the class, but additional practice is given upon certain subjects.

Thus far the class has dealt with fractions, decimals, de-

nominate numbers, bills, and measurements. Later percentage, interest, discount, surfaces, volumes, and like subjects will be considered.

English. — Four hours a week. The study of this subject has embraced capitalization, punctuation, spelling, invention, and reproduction. The work for the remainder of the year will continue along these and other practical lines.

At each recitation the members of the class hand in something in the line of composition. This, when corrected, is returned to the students, and, in most cases, they are required to re-write the composition, thus fixing the corrections more firmly in mind.

This class held its first public rhetoricals in the College Chapel on the evening of November 16, 1898. The speakers were much interested in the preparation and worked hard to make a successful program.

History. — Four hours a week. At the beginning of the year, a short course in American History was taken up and finished. Since then Channing's Student's History of the United States has been introduced. This book will be finished this year. The class is encouraged to consult various historians, and a part of the recitation hour is spent in reading and discussing the opinions of these authors.

Respectfully submitted.

MRS. JOSIE B. H. BALLOU.

THE COLLEGE LIBRARY.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:— Since reporting to you the condition of the library one year ago, several important changes and improvements have been made. More shelf-room was a positive necessity, and two new book-stacks were added. These took so much of the space in the main room that it became necessary to provide a separate room for periodicals, which was

finally done by connecting the adjoining room with the library. We now have a convenient, well-lighted reading-room, which we all enjoy and appreciate. It is supplied with about eighty periodicals. We subscribe for forty-four of these, at a cost of \$109.80. The remainder are sent gratuitously by the publishers, or are received by the Experiment Station in exchange for their publications, and then donated to the reading-room.

The library and reading-room are open each week day from 8 A. M. to 12.15 P. M., and from 4 to 8 P. M. The students are allowed free access to the shelves, and may draw books for a period of two weeks, to be used in their rooms. The library is constantly consulted for reference work, and it is the desire of the librarian to help the students in every way possible, and to make the library useful to them.

In connection with the Extension Department of the college we have recently sent out two traveling libraries, each consisting of fifty volumes of carefully selected books. These have been sent to the two circles of ten members each, who have completed the course of home study offered by the Extension Department. We hope, in course of time, to extend this work, for there is a wide field open to traveling libraries in the rural communities of Connecticut. And much might be done in this way toward elevating the farmers' families of the State, had we the means to purchase books for this purpose. New York, Michigan, Ohio, Wisconsin, Iowa, and several other states are doing a grand work by means of traveling libraries; and, though the rural towns of Connecticut are many of them fortunate enough to possess public libraries of their own, still there are many where traveling libraries would be welcome, and accomplish good results.

We are constantly adding new books to the library, and care is taken that it shall furnish to each department of the college the most up-to-date books on their especial subjects, as well as the standard works of reference. During the past year 1,102 volumes have been added, and our accession books record 6,552 titles. The cost of the books added during the past year has been \$1,085.15.

As our library increases in value, we feel more and more keenly the need of a fire-proof building, and trust that at a date not far distant we may have the satisfaction of seeing a suitable building provided for our valuable collection of books.

Respectfully submitted,
JESSIE SPENCER BOWEN.

FARM DEPARTMENT.

To the Honorable Board of Trustees:

GENTLEMEN:— In presenting this paper, I am mindful of the fact that my position entitles me to only a small place in your annual report; and I shall, therefore, speak briefly of the work of the farm during the past year. I do not forget, however, that the eyes of the State are upon us, as an educational institution, and that our duties, if well performed, are sure to win the award of the public approval. For it is pleasant to note the changes from a feeling of doubt and distrust to that of confidence in the success of Storrs Agricultural College, that has gradually taken place within the last few years. And yet there is left enough of conservatism, of adherence to old methods in agriculture, and therefore of criticism, to steady the work of the college, and to hold it within the lines intended by its founder, and prescribed by the Act of Congress which ensures its continuance and support. I am not sure that this general reversion of feeling will not before long express itself in a demand that what was at first known by the unpretending name of Storrs Agricultural School shall hereafter assume the more dignified, broader, truer name of the Connecticut Agricultural College, thus identifying it with the whole people.

The farm of nearly three hundred acres is now becoming as fertile and productive, not only as those that border upon it and have been for many years models of fertility and productiveness, but in the production of forage crops for the maintenance of the dairy, it compares favorably with those of

any other section of our State. Thus the prediction of those who opposed its acceptance by the State for educational purposes has already been falsified, while the hope of those who favored its acceptance has been fulfilled. The sadly depleted soil has responded readily to the touch of labor, and interest in its improvement, until now the large barn built by your direction, and with reference to "expansion," or future need, is hardly ample for sufficient storage or stable room. This steady increase of production is only the normal result of generous fertilization and thorough, intense cultivation. Nothing can be more laudable in educational farming than the effort to demonstrate the advantages of intensive farming to those who come to us as students of both scientific and practical agriculture.

The facilities for such instruction are annually becoming more and more complete. Suitable dairy animals for breeding and for milk production, a fair equipment of farm implements and machinery, larger and better means of feeding and of fertilization, the introduction of running water to the farm buildings, a fully-equipped dairy-house, and important improvements in farm sanitation, now being made,—are some of the indispensable facilities for good educational work. Illustration is by far the most effective method of instruction. The theory of the classroom becomes far less difficult to enforce, if such object lessons as justify it are at hand.

Several acres have been added during the past year to the area of land available for cultivation. This involved a considerable outlay of labor in removing boulders and fitting the land for easy and thorough cultivation the coming year. This labor has been largely performed by the students, and wholly by the farm employes. Some wet upland has been thoroughly drained. This, I am fully convinced, is one of the most profitable kinds of farm labor, and when well done much more than repays its cost. Here at least capital and labor are in entire agreement, each supplementing the other.

The growth of the college necessitates a large increase of available farm labor, so long as the present requirement of daily

labor by each student is continued. How to employ so much labor profitably, or even at all, is sometimes a difficult problem. The simple question of employment is comparatively easy, but the other condition requires constant study. Justice to the student seems to demand the utmost effort in the line of making his labor the full equivalent of the wages he receives. More extensive land improvement might perhaps be suggested as a solution of this rather difficult question. As long as there remains an unimproved acre of the college farm, the plan of making student labor simply optional will lack the support which necessity might otherwise give it. Land improvement means increased production, and this is the end and aim of the generous provision which the State and the nation have made for the maintenance of the Agricultural College and the Experiment Station. The true dignity of agriculture lies in the fact that it is set to the task of compelling the soil to furnish the larger part of the world's food supply. How to do this most successfully is the question for the Agricultural College to answer.

Respectfully submitted,
L. P. CHAMBERLAIN,
Farm Superintendent.

BOARDING DEPARTMENT.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:— My principal duty is to care for the health and comfort of the young men in the dormitories, and to provide them suitable food at reasonable cost. I also have charge of the rooms in the main building, and the entertainment of the guests of the students and the college.

The boarding department is distinct from that at Grove Cottage, and is located in the main building.

During the summer term I provided both the ladies and the gentlemen of the incoming Senior class with table board.

But the other three terms of the year the young ladies are provided for at Grove Cottage.

Our dining-rooms are pleasant, we have a competent cook, and with her co-operation I aim to provide a wholesome and attractive table. Our meats and groceries are bought at wholesale, and this is found to be very satisfactory, something thus being saved on all purchases. We use a large quantity of vegetables. The college gardens have not met the demand the past year, and canned goods were used to some extent in place of fresh vegetables. But on the whole the year has been successful. The students require board which shall cost about two dollars and one-half a week, and I have kept it as near as possible to the preferred limit.

In the dormitories you instructed me to have all necessary repairs made, and much improvement is evident. The rooms have been papered and painted, new shades have been placed at the windows, new bed curtains have been supplied, and many of the mattresses have been thoroughly renovated, and are good as new. All of which has improved the conditions of healthfulness and comfort.

Such are my duties, and such is the present condition. But I am prevented from doing what ought to be done, by a lack of suitable equipment.

Owing to the increased number of students, the dormitories are too crowded for comfort; and, although no accident has yet happened, the oil lamps used in the dormitories are a constant source of uneasiness. Therefore, more accommodations and a safer system of lighting are immediately needed.

Besides, we have no hospital, and practically no means of quarantine in case of infectious diseases. Last spring we had many cases of measles. If the first case could have been isolated and properly cared for, the disease would not have spread. Much anxiety was felt and there was considerable interference with college duties. But other diseases, more infectious and dangerous, may at any time break out, and the need of a good hospital is most imperative.

But there is nothing of which I am so constantly reminded

as the demand for better accommodations and equipment for the boarding department.

The kitchen in the basement is dark and unsanitary. The storerooms for meat and provisions are not suited for the purpose, and the cost of cooking is too great owing to the lack of ordinary modern facilities in the kitchen.

Our dining-rooms are overcrowded, even when only students are present; but it is especially noticeable at Commencement, when the students wish to entertain their friends and provide accommodations for the alumni.

A like want is felt in the number of guest rooms. At present we have only three, two of which are in the attic.

Therefore, if I may be permitted to do so, I would respectfully recommend the erection of a new building with all modern improvements, a large dining-hall, and rooms for guests and the employes of the boarding department.

In conclusion, I would say that I have mentioned the lack of accommodations and equipments, and have made the above recommendations, because I think that the gentlemen of the Board of Trustees desire to promote, as far as possible, not only the health, safety, and reasonable comfort of the students and their guests, but also to further the economic success of the department which has been put in my charge.

Respectfully submitted,

LOUISA E. SAXTON.

ESTIMATED INVENTORY OF PROPERTY ON HAND.

CHEMICAL LABORATORY.

Chemical apparatus,	.	.	.	\$385 00
Re-agent and other bottles,	.	.	.	150 00
Chemicals on hand,	.	.	.	175 00
Physical apparatus,	.	.	.	1,000 00
Photographic apparatus.	.	.	.	175 00
Chemical balances,	.	.	.	175 00
Typewriter,	.	.	.	60 00
Office furniture,	.	.	.	30 00
				<hr/>
				\$2,150 00

NATURAL HISTORY DEPARTMENT.

Thirteen compound microscopes,	.	.	.	\$310 00
Fifteen dissecting microscopes,	.	.	.	150 00
Two turn-tables,	.	.	.	16 00
Collection of specimens,	.	.	.	385 00
				<hr/>
				\$911 00

MATHEMATICAL DEPARTMENT.

Engineer's transit,	.	.	.	\$129 00
Equipment,	.	.	.	248 00
Geometry and drawing,	.	.	.	70 20
				<hr/>
				\$438 20

HORTICULTURAL DEPARTMENT.

Tools,	.	.	.	\$317 55
Greenhouse stock,	.	.	.	131 75
Fruits and vegetables,	.	.	.	105 80
				<hr/>
				\$555 10

MILITARY DEPARTMENT.

Equipment and supplies,	.	.	.	\$735 75
Botanical outfit,	.	.	.	54 19
Dormitories,	.	.	.	657 25
				<hr/>
				\$1,447 19

MUSIC DEPARTMENT.

Two grand pianos,	.	.	.	\$1,000 00
Two upright pianos,	.	.	.	700 00
				<hr/>
				\$1,700 00

MECHANICAL DEPARTMENT.

Ten benches with tools,	.	.	.	.	.	\$200 00
Other tools,	.	.	.	.	.	45 00
Hardware,	.	.	.	.	.	52 00
One grindstone,	.	.	.	.	.	12 00
Window glass in stock,	.	.	.	.	.	32 00
Lumber in stock,	.	.	.	.	.	115 00
Paint in stock,	.	.	.	.	.	38 00
Varnish in stock,	.	.	.	.	.	23 00
Mason's supplies,	.	.	.	.	.	10 00
Nine forges,	.	.	.	.	.	150 00
Ten anvils,	.	.	.	.	.	125 00
Two drilling machines with drill,	.	.	.	.	.	30 00
Five steel-faced vises,	.	.	.	.	.	20 00
Other tools in B. S.,	.	.	.	.	.	61 00
Coal, iron, and steel in stock,	.	.	.	.	.	16 00
Stock and tools, miscellaneous,	.	.	.	.	.	28 00

						\$957 00

VETERINARY DEPARTMENT.

Apparatus and instruments,	.	.	.	.	\$1,535 75
Horses,	.	.	.	.	280 00
Wagons and sleighs,	.	.	.	.	425 00
Harnesses,	.	.	.	.	68 50
Miscellaneous stock,	.	.	.	.	47 05
Feed in stock,	.	.	.	.	298 00

					\$2,654 30

GROVE COTTAGE.

Domestic science equipment,	.	.	.	.	\$575 00
Boarding department,	.	.	.	.	400 00
Furnishings,	.	.	.	.	1,100 00

					\$2,075 00

BOARDING HALL.

Dining-room furniture,	.	.	.	.	\$301 83
Table linen,	.	.	.	.	115 83
Kitchen utensils,	.	.	.	.	219 30

					\$636 96

CHAMBER OUTFIT.

Furniture,	\$393 55
Bed linen,	98 30
Mattresses and pillows,	188 00
Curtains and hangings, . . . . .	.26 44
Carpets and matting, . . . . .	.56 92
Bowls and pitchers, . . . . .	.30 92
Lamps and fittings, . . . . .	.23 41
	<hr/>
	\$817 54

FARM MACHINERY, TOOLS, LIVE STOCK, FEED, AND FARM PRODUCTS ON HAND DECEMBER 1, 1898.

	Estimated Value.
Dairy machinery,	\$2,000 00
Farm machinery and tools,	1,100 00
2 pair working oxen,	300 00
1 pair heavy farm horses,	300 00
1 pair light farm horses,	100 00
11 thoroughbred cows,	1,375 00
3 thoroughbred bulls,	300 00
7 thoroughbred yearling heifers,	175 00
6 thoroughbred calves,	60 00
16 grade cows,	640 00
2 grade yearling heifers,	30 00
2 grade calves,	10 00
2 thoroughbred boars,	50 00
2 thoroughbred breeding sows,	40 00
1 thoroughbred sow and 7 pigs,	30 00
5 shoats,	40 00
7 pigs,	21 00
65 tons hay,	650 00
3 tons oat and pea straw,	21 00
100 tons silage,	250 00
100 bushels oats and peas,	40 00
600 bushels oats,	210 00
500 bushels turnips,	75 00
300 bushels potatoes,	150 00
50 bushels small potatoes,	5 00
10 barrels apples,	15 00
11 tons wheat bran,	143 00
4 tons wheat middlings,	63 00
5 tons Chicago gluten meal,	92 50
4 tons cotton-seed meal,	87 00
	<hr/>
	\$8,372 50

POULTRY DEPARTMENT.

Material for supplies purchased from September 30, 1897, to

October 1, 1898,	.	.	.	.	.	\$332 80
Inventory February 10, 1898,	.	.	.	.	.	1,257 32
						<hr/> \$1,590 12

INVENTORY JANUARY 1, 1899.

Buildings, etc.,	.	.	.	.	.	\$803 29
Stock,	.	.	.	.	.	169 55
Supplies on hand,	.	.	.	.	.	157 75
Tools,	.	.	.	.	.	53 10
Miscellaneous,	.	.	.	.	.	129 83
						<hr/> \$1,313 52
Produce sold,	.	.	.	.	.	573 91
						<hr/> \$1,887 43

TREASURER'S REPORT.

H. C. MILES, *Treasurer,*

In account with STORRS AGRICULTURAL COLLEGE.

Dr.

1897.

Sept. 30.	By balance on account,	.	.	\$8,283 10
Oct. 1.	By cash Comptroller,	.	.	3,750 00
Oct. 6.	B. F. Koons,	.	.	3,000 00
Oct. 28.	Storrs Experiment Station,			35 38
Oct. 30.	A. B. Peebles, rent of cot-			
	tage,	.	.	37 50
Nov.	Use of telephone,	.	.	27 00
Nov. 29.	B. F. Koons,	.	.	97 12

1898.

Jan. 1.	B. F. Koons,	.	.	800 00
Jan. 4.	Comptroller,	.	.	3,750 00
Jan. 18.	Use of telephone,	.	.	11 55
Jan. 21.	A. B. Peebles, rent of cot-			
	tage,	.	.	37 50
Feb. 8.	Morrill Fund,	.	.	73 24
April 1.	Storrs Experiment Station,			8 28
April 6.	B. F. Koons,	.	.	3,500 00
April 7.	Comptroller,	.	.	3,750 00
April 21.	A. B. Peebles, rent of cot-			
	tage,	.	.	37 50
	Use of telephone,	.	.	11 00
May 3.	Storrs Experiment Station,			91 50
July 6.	Comptroller,	.	.	3,750 00
July 1.	B. F. Koons,	.	.	2,500 00
July 12.	Use of telephone,	.	.	10 25
Sept. 3.	A. B. Peebles, rent of cot-			
	tage,	.	.	37 50
Sept. 3.	Ratcliffe Hicks Prize Fund,			60 00—\$33,658 42

CLASSIFICATION OF EXPENSES FOR FISCAL YEAR, OCT. 1, 1897, TO SEPT.
30, 1898.

State Funds.

New roads and grounds,	.	.	\$2,078 13
Additions and repairs of buildings,	.	.	5,806 40
Provisions,	.	.	5,483 35
Fuel and lights,	.	.	270 37
Kitchen outfit,	.	.	552 64
Dormitory outfit,	.	.	480 23
Salaries,	.	.	420 04
Servant hire,	.	.	1,178 01
Washing,	.	.	1,221 66
Books and stationery,	.	.	1,392 09
Traveling expenses,	.	.	113.78
College sundry supplies,	.	.	8 65
Insurance,	.	.	246 06
Telephone rentals,	.	.	35 90
Extension department,	.	.	171 70
Military department,	.	.	1,019 78
Farm fertilizers,	.	.	333 60
Farm labor,	.	.	1,246 06
Farm animals,	.	.	193 20
Farm blacksmithing,	.	.	78 20
Farm feed stuffs,	.	.	789 99
Farm tools and other supplies,	.	.	228 06
Horticultural fertilizers,	.	.	80 00
Horticultural labor,	.	.	192 61
Horticultural tools and other supplies,	.	.	244 69
Horse barn feed,	.	.	557 18
Horse barn blacksmithing,	.	.	74 30
Horse barn supplies,	.	.	228 58
Horse barn labor,	.	.	228 08
Cottages 2 and 3,	.	.	6,301 22
Poultry department,	.	.	332 79
Dairy equipment,	.	.	69 83
Circular saw,	.	.	40 00
Hicks prizes,	.	.	50 00
Church sittings,	.	.	25 00
Piano,	.	.	500 00
			\$32,272 18
Balance on account September 30, 1898,	.	.	1,386 24—\$33,658 42

MILFORD, CONN., Jan. 25, 1899.

This certifies that we have examined the accounts of Henry C. Miles, Treasurer of Storrs Agricultural College, for the fiscal year ending September 30, 1898, compared them with the vouchers and found them correct. The balance in the hands of the Treasurer at the end of the year was thirteen hundred and eighty-six dollars and twenty-four cents (\$1,386.24.)

FRANKLIN B. NOYES,
D. WARD NORTHROP,

Auditors of Public Accounts.

MORRILL FUND (U. S. GOVERNMENT GRANT) OF 1890.

Dr.

1897.		
Sept. 30.	By balance of account,	. \$10,044 05
1898.		
Jan. 20.	Cash interest,	. . 72 00
Jan. 26.	Cash State Treasurer,	. . 23,000 00
July 20.	Cash interest,	. . 150 00—\$33,266 05

Classification of expenses from the Morrill Fund (U. S. Government grant) of 1890 for the fiscal year ending September 30, 1898:

Salaries,	. . . . .	\$16,702 40
Books for library,	. . . . .	1,479 06
Agricultural tools and equipment,	. . . . .	310 07
Horticultural stock and machinery,	. . . . .	62 67
Dairy machinery and stock,	. . . . .	305 19
Chemicals and chemical apparatus,	. . . . .	190 34
Physical apparatus,	. . . . .	268 25
Natural history outfit and microscopical supplies,	. . . . .	519 58
Surveying instruments,	. . . . .	31 37
Fruit models,	. . . . .	133 45
Wood and iron shop tools and stock,	. . . . .	210 95
Domestic Science department,	. . . . .	98 97
Veterinary Science department,	. . . . .	142 42
Equipment for drawing,	. . . . .	115 76
		<hr/>
		\$20,570 48
Balance on account September 30, 1898,	. . . . .	12,695 57—\$33,266 05

HARTFORD, CONN., Jan. 3, 1899.

This certifies that we have examined the accounts of Henry C. Miles, Treasurer of the Storrs Agricultural College, for the fiscal year ending September 30, 1898, relating to the Morrill Fund, compared them with the vouchers, and found them correct. The balance of said fund in the hands of the Treasurer on said date was twelve thousand, six hundred and ninety-five and 57/100 dollars (\$12,695.57).

T. S. GOLD,
W. E. SIMONDS,

Auditors of Storrs Agricultural College.

LAND GRANT FUND (U. S. GOVERNMENT GRANT) OF 1862.

Dr.

1897.					
Sept. 30.	By balance of account,	.	.	\$21,702	87
1898.					
Jan. 2.	Cash interest,	.	.	163	00
Jan. 26.	Cash State Treasurer,	.	.	6,697	97
Jan. 26.	Cash,	.	.	74	
July 20.	Cash interest,	.	.	170	00—\$28,734
				58	

Classification of the expenses from the Land Grant Fund (U. S. Government grant) of 1862 for the fiscal year ending September 30, 1897:

Salaries,	.	.	.	.	\$5,426	20
Traveling expenses,	.	.	.	.	921	30
Fuel,	.	.	.	.	788	05
Postage,	.	.	.	.	182	19
Telephones and rental,	.	.	.	.	196	85
Printing,	.	.	.	.	659	46
Stationery,	.	.	.	.	130	17
Dairy engine,	.	.	.	.	294	25
Janitor,	.	.	.	.	232	30
Library furniture,	.	.	.	.	85	14
Office furniture,	.	.	.	.	31	25
Repair of typewriter,	.	.	.	.	7	83
Commencement expenses,	.	.	.	.	82	30
Association of Ag. Coll. and Ex. Sta.,	.	.	.	.	10	00
					\$9,047	29
Balance on account September 30, 1898,	.	.	.	.	19,687	29—\$28,734
					58	

MILFORD, CONN., Jan. 25, 1899.

This certifies that we have examined the accounts of Henry C. Miles, Treasurer of Storrs Agricultural College, relating to the Land Grant Fund, for the fiscal year ending September 30, 1898, compared them with the vouchers and found them correct. The balance of said fund in the hands of the Treasurer at the end of the year was nineteen thousand, six hundred and eighty-seven dollars and twenty-nine cents (\$19,687.29).

D. WARD NORTROP,
FRANKLIN B. NOYES,
Auditors of Public Accounts.

Amount paid for salaries not less than four hundred and fifty dollars to any individual from the Morrill fund. (U. S. Government grant of 1890.)

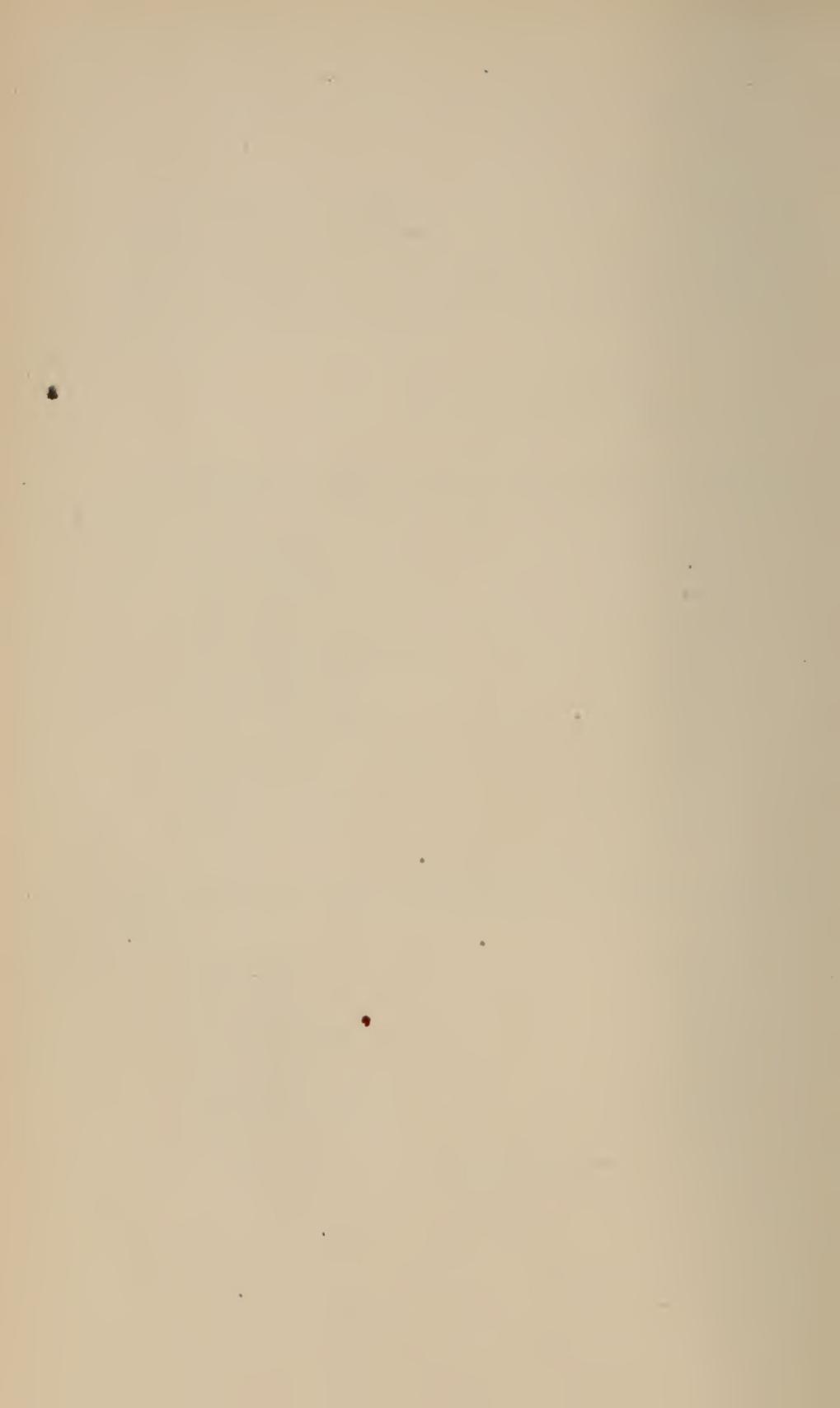
B. F. Koons,	. . . . .	\$2,800.00
A. B. Peebles,	. . . . .	1,800.00
A. G. Gulley,	. . . . .	1,800.00
N. S. Mayo,	. . . . .	1,500.00
C. S. Phelps,* $\frac{1}{2}$ salary,	. . . . .	900.00
H. S. Patterson,	. . . . .	1,000.00
C. A. Wheeler,	. . . . .	1,000.00
Mrs. C. A. Wheeler,	. . . . .	700.00
H. A. Ballou,	. . . . .	700.00
C. L. Beach,	. . . . .	800.00
Miss L. J. Barber,	. . . . .	710.00
R. A. Stimson,	. . . . .	1,500.00

Amount paid for salaries not less than four hundred and fifty dollars to any individual from the Land Grant Fund. (U. S. Government grant of 1862.)

T. S. Gold,	. . . . .	\$460.00
H. C. Miles,	. . . . .	525.00
G. W. Flint,	. . . . .	500.00
L. P. Chamberlain,	. . . . .	950.00
W. L. Chamberlain,	. . . . .	600.00
M. H. Parker,	. . . . .	480.00
Miss Jessie S. Bowen,	. . . . .	500.00
Miss Lulie G. Lincoln,	. . . . .	700.00

* Same amount paid by the Storrs Experiment Station.





CATALOGUE
OF THE
OFFICERS AND STUDENTS
. . OF . .

Storrs Agricultural College,

STORRS, CONNECTICUT.



Courses of Study and General Information.



1898-1899.

“The diligent farmer plants trees, of which he himself will never see the fruit.”—*Cicero*.



HARTFORD, CONN.:

PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY.

1899.

BOARD OF TRUSTEES.

His Excellency THE GOVERNOR, *ex officio*, President.

Hon. Wm. E. SIMONDS, Canton, Vice-President.

Appointed by the Senate.

		Term Expires.
T. S. Gold,	West Cornwall (Secretary),	1901
Henry C. Miles,	Milford ('Treasurer),	1899
Wm. E. Simonds,	Canton,	1901
Hon. E. S. Henry,	Rockville,	1899
Dr. A. Hyde,	Norwich,	1899
S. O. Bowen,	Eastford,	1901
Prof. S. W. Johnson,	New Haven, <i>ex officio</i> , Director of the Connecticut Experiment Station.	

Elected by the Board of Agriculture.

E. Halladay,	Suffield,	1899
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EXECUTIVE COMMITTEE.

H. C. Miles,	T. S. Gold,	W. E. Simonds.
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FARM COMMITTEE.

E. S. Henry,	E. Halladay,	C. S. Phelps.
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AUDITORS.

T. S. Gold,	W. E. Simonds.
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BOARD OF INSTRUCTION.

FACULTY.

GEORGE W. FLINT, President.

B. F. Koons, . . .	Zoölogy, Geology, and Political Science.
L. P. Chamberlain, . .	Farm Superintendent.
C. S. Phelps, . . .	Agriculture.
A. B. Peebles, . . .	Chemistry and Physics.
Miss L. J. Barber, . .	Instructor in Mathematics and English.
A. G. Gulley, . . .	Horticulture.
H. S. Patterson, . .	Instructor in Wood and Iron Shop.
Miss Lulie G. Lincoln,	Lady Principal and Instructor in Music.
W. L. Chamberlain, . .	Poultry Culture.
C. L. Beach, . . .	Instructor in Dairying.
Rev. R. W. Stimson, .	Instructor in Rhetoric, Elocution, and Ethics.
Henry A. Ballou, . .	Instructor in Botany and Military Science.
Charles A. Wheeler, .	Instructor in Mathematics and History.
Mrs. Maude Wheeler, .	Domestic Science.
Nelson S. Mayo, . . .	Veterinary Science.
Miss Louisa E. Saxton,	Matron.
Miss Jessie S. Bowen,	Librarian.
Mrs. J. B. H. Ballou, .	Preparatory Department.

CALENDAR.

1898-1899.

The college year contains forty-four weeks, divided into four terms of eight, thirteen, twelve, and eleven weeks, respectively.

Fall Term began	Monday, September 19, 1898.
Fall Term closed	Wednesday, December 21, 1898.
Winter Term began	Monday, January 2, 1899.
Winter Term closes	Friday, March 24, 1899.
Spring Term begins	Monday, April 3, 1899.
Baccalaureate Address,	Sunday, June 11, 1899.
Class Day,	Tuesday Evening, June 13, 1899.
Commencement Day,	Wednesday, June 14, 1899.
Summer Term begins	Monday, June 26, 1899.
Summer Term closes	Friday, August 18, 1899.
Fall Term begins	Monday, September 18, 1899.
Fall Term closes	Tuesday, December 19, 1899.
Winter Term begins	Tuesday, January 2, 1900.

Entrance Examinations for the Fall Term, 1899, will be held at Danbury, Norwich, New Haven, Hartford, East Winsted, and at the College, of which due notice will be given.

1898-1899.

SEPTEMBER.							MARCH.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	5	6	7	8	9	10	11
4	5	6	7	8	9	10	12	13	14	15	16	17	18
11	12	13	14	15	16	17	19	20	21	22	23	24	25
18	19	20	21	22	23	24	26	27	28	29	30	31	
OCTOBER.							APRIL.						
						1	2	3	4	5	6	7	8
2	3	4	5	6	7	8	9	10	11	12	13	14	15
9	10	11	12	13	14	15	16	17	18	19	20	21	22
16	17	18	19	20	21	22	23	24	25	26	27	28	29
23	24	25	26	27	28	29	30						
NOVEMBER.							MAY.						
		1	2	3	4	5	7	8	9	10	11	12	13
6	7	8	9	10	11	12	14	15	16	17	18	19	20
13	14	15	16	17	18	19	21	22	23	24	25	26	27
20	21	22	23	24	25	26	28	29	30	31			
DECEMBER.							JUNE.						
				1	2	3	4	5	6	7	8	9	10
4	5	6	7	8	9	10	11	12	13	14	15	16	17
11	12	13	14	15	16	17	18	19	20	21	22	23	24
18	19	20	21	22	23	24	25	26	27	28	29	30	
JANUARY.							JULY.						
1	2	3	4	5	6	7	2	3	4	5	6	7	8
8	9	10	11	12	13	14	9	10	11	12	13	14	15
15	16	17	18	19	20	21	16	17	18	19	20	21	22
22	23	24	25	26	27	28	23	24	25	26	27	28	29
29	30	31					30	31					
FEBRUARY.							AUGUST.						
			1	2	3	4	6	7	8	9	10	11	12
5	6	7	8	9	10	11	13	14	15	16	17	18	19
12	13	14	15	16	17	18	20	21	22	23	24	25	26
19	20	21	22	23	24	25	27	28	29	30	31		

GENERAL INFORMATION.

SITUATION.

Storrs Agricultural College is situated on a high and commanding eminence, healthful in its location, delightful in its environment, and surrounded by a variety of natural beauty unexcelled in the Commonwealth.

The beautiful hills rise in gentle undulations to meet the first rays of the glimmering dawn, and catch the golden beams of the setting sun in leafy June. Removed from the temptations of larger centers, it offers a charming retreat to all young men and women desirous of preparing themselves for better citizens and more intelligent builders of happy homes.

The nearest railroad station is Eagleville, on the Central Vermont road, which connects at Willimantic with the New England division of the Consolidated road.

A long-distance telephone at the college renders it easy of communication by telephone or by telegraph.

EQUIPMENT.

"There is always work, and tools to work withal, for those who will." — *Lowell*.

It is the aim of the management to carry out the full intention of the Federal and State governments in the line of agriculture and the mechanic arts. The college farm contains about three hundred acres of land.

Buildings for laboratories and recitation rooms, dwelling-houses for members of the faculty, dormitories for the students, and barns for the stock have been provided by the State. Others are needed. A building for the library and museum is a want pressing for recognition. It is hoped by the friends of the college that a building for Horticulture and Botanical laboratories, a hall for military tactics in winter, and a students' dining-hall will be erected in the near future.

The faculty of the college is composed of a corps of competent men and women, with special training and wide experience in their respective departments.

EXPENSES.

"He will always be a slave, who does not know how to live upon a little."—*Horace*.

Tuition and room rent are free to all students. The rooms are provided with bed, mattress, study table, and chairs. Bedding, toilet and table linen, lamps, carpets and rugs, and other things desired for comfort are furnished by the students.

Board, fuel, lights, books, and stationery are furnished at cost. A student's expenses will vary from \$125 a year up; but with economy and labor, at from eight to twelve cents an hour, he may reduce his annual expenditures to a minimum.

At the beginning of every term each student is required to deposit \$40 to meet his college expenses, or to furnish a guarantee of payment, signed by his parent or guardian with satisfactory surety.

STUDENT LABOR.

"He is not only idle who does nothing, but he is idle who might be better employed."—*Socrates*.

Students of both sexes are employed, and paid for their work by the college. These are all under the control of the heads of departments.

Industrious and faithful young men and women can do much toward helping themselves financially, as well as to become skilled in things pertaining to farm and household labor.

CHURCH ATTENDANCE.

"To be of no church is dangerous."—*Johnson*.

Students are required to attend prayers at the College Chapel daily, except Saturdays and Sundays, and services at church Sunday morning.

Parents or guardians have the privilege of designating the church that they desire their students to attend.

The Second Congregational Church at Storrs has set apart one-fourth of its seating capacity for the exclusive use of the college students.

PRIZES.

"It is not strength, but art, obtains the prize."—*Pope*.

The Ratcliffe Hicks prizes of \$50 for excellence in English composition were awarded this year to J. W. Pincus, first, \$30; and the second, of \$20, to N. J. Webb.

REQUIREMENTS FOR ADMISSION.

"Of a good beginning cometh a good end."—*Heywood*.

Applicants for admission to Storrs Agricultural College must be citizens of Connecticut, and at least fifteen years of age. They will be expected to pass a satisfactory examination in Reading, Writing, Spelling, English Grammar, Arithmetic, Geography, and United States History.

Candidates will be required to present satisfactory testimonials in respect of good character and previous scholarship from a former teacher, pastor, or neighbor qualified to recommend them.

Students desiring to enter an advanced class will be examined in the work previously done by that class.

Classes are formed at the beginning of the fall term of each year, but students may be admitted at any time by special examinations.

Certificates from accredited High Schools may be received, at the discretion of the faculty, in place of examinations, if the work of the High School is equivalent to that done by the lower college classes.

Students conditioned on entering college will be required to work off such conditions before advancing to next year's schedule.

DEPORTMENT.

"Obedience is the key to every door." — *George MacDonald*.

It is understood that every person who registers as a student of the college agrees to comply with all rules and regulations of the institution.

Absence from college invariably interrupts the continuity of the student's work, and diverts his attention from the main object for which he attends college. Therefore, parents and guardians are courteously requested not to ask that their sons and daughters be permitted to leave college in term time, except for urgent reasons.

Leave of absence may be granted by the President, or the officer in charge when the President is away. In every case the student must first get a written excuse from the officer of his department in class and labor, and will be required to make up all deficiencies in study and drill caused by his absence.

All questions of change from the regular course of study, or of dropping studies, shall be referred to the faculty.

Ungentlemanly conduct, unexcused absence from any college exercise, interfering with college property, etc., shall be treated as misdemeanors, and punished according to the offense. Students who damage college property shall pay for the damage in addition to the punishment. All such offenses shall be referred to the faculty as a whole, who shall decide upon the merits of the case, and determine the requisite punishment; but each member of the faculty is empowered to exact obedience and good conduct in class and on the college premises.

PROMOTION.

"Honors come by diligence."—*Davis.*

To pass from one study to another, or from one class to the next, the student must reach an average of sixty, sixty-five, seventy, and seventy-five per cent., according to grade, in his daily work and in his examinations.

A failure in two branches will allow a student to pass with the condition that the deficiency be satisfactorily made up before the end of the succeeding term.

A student failing in more than two studies shall drop back to the next lower class, or withdraw.

Students intending to graduate shall make up all deficiencies before the spring term of the Senior year.

After 1899 no student will receive a diploma whose college bills are in arrears.

COURSES OF INSTRUCTION.

"All desire knowledge, but no one is willing to pay the price."—*Juvenal.*

The courses of instruction include class-room work in English and English Literature, Mathematics, Physics, Chemistry, Botany, Entomology, Zoology, and Geology; practical exercises in Agriculture, Horticulture, and Veterinary Sci-

ence; Domestic Science, both by text-book and laboratory methods; Music to such as may elect it; Physical Training in the gymnasium for the young ladies, and Military Drill for the young men.

Each student who intends to complete the entire course is required to spend a summer term at the college between the third and fourth years, in order to receive special instruction in certain lines of Agriculture and Horticulture, and in Entomology, which are available only at that season of the year.

ENGLISH.

"Syllables govern the world."—*Selden*.

1. Four hours a week are given Preparatory English, embracing Capitalization, Punctuation, Spelling, Invention, and Reproduction in frequent written work, with the addition of Rhetorical Exercises.

MRS. BALLOU.

2. The Freshman and Sophomore classes receive instruction five hours a week in both English and Elocution. Technical Grammar and Composition are developed together, both by class instruction and by instruction with individual students, from Sheldon's Advanced Language Lessons and Townsend's Elocution and Action.

MISS BARBER.

3. Rhetoric three hours a week, Waddy's Elements of Composition, and Hill's Foundations of Rhetoric, with outside reading and constant writing, is given to the Junior class with critical help to each student. Elocution is studied four hours a week for the technique of delivery, and Rhetorical Exercises are required each term, as in 1 and 2.

PROF. STIMSON.

ENGLISH LITERATURE.

"My early and invincible love of reading, I would not exchange for the treasures of India."—*Gibbon*.

"No matter what his rank or position may be, the lover of books is the richest and the happiest of the children of men."—*Langford*.

1. Three hours a week through the fall and winter terms

are given this subject. Brooke's English Literature, Matthews' Introduction to the Study of American Literature, and George's From Chaucer to Arnold are placed in the hands of students for text-book work. Lectures are given, notes are taken, and comprehensive essays are required of each student.

2. Elocution one hour a week prepares the way for Senior addresses, one each term through the year.

3. Ethics is treated as the Science of Conduct, three hours a week in the spring term, with lectures, Janet's Elements of Morals, and Muirhead's Elements of Ethics.

PROF. STIMSON.

AGRICULTURE.

"The agricultural population produces the bravest men, the most valiant soldiers, and a class of citizens the least given of all to evil designs."—*Cato*.

1. Agronomy, four hours a week, treating of soils, their properties, improvement by tillage, drainage, irrigation, and fertilization; food value of crops, methods of planting, caring for, and harvesting.

2. Zootechny, four hours a week, treating of live stock, principles of breeding, feeding, heredity, care and management of the dairy herd.

3. Rural Economics, treating of farm management, rural law, business operations relating to the farm, farm machinery, etc.

PROF. PHELPS.

HORTICULTURE AND FLORICULTURE.

"At once amazed in all the colors of the flushing year,
By nature's swift and secret-working hand,
The garden glows."—*Thompson*.

The Junior and Senior classes are instructed equally about five hours a week for one full year in growing and fruiting plants, using Thomas' American Fruit Culturist, and Long's Ornamental Gardening. Forestry and Floriculture add interest to the course.

PROF. GULLEY.

CHEMISTRY.

"The glorious sun
Stays in his course, and plays the alchemist:
Turning, with splendor of his precious eye,
The meagre cloddy earth to glittering gold."—*Shakespeare*.

1. The Freshman class engage in laboratory work one hour a week part of the year.

2. The Sophomore class take up Qualitative Analysis thirty-six hours in the winter term. Lectures on Agricultural Chemistry are given to the Junior class in the spring term, with Quantitative Analysis the fall term of the Senior year.

PROF. PEEBLES.

PHYSICS.

"Natural Philosophy makes men deep."—*Dayton.*

This subject is confined to one term in the Junior year, supplemented with a brief course in Meteorology.

PROF. PEEBLES.

DAIRYING.

"The curfew tolls the knell of parting day,
The lowing herd winds slowly o'er the lea."—*Gray.*

1. A short winter course in dairying is given for the benefit of those who can take but little time for the subject, including composition of milk, conditions of creaming, milking for market, butter making, washing, salting, packing, etc. Breeding, feeding, and diseases of dairy cattle are subjects also treated in this course, with such texts as "Milk and Its Products," "Bacteriology," and "Feeds and Feeding."

2. In the regular course the Junior class is instructed four and one-half hours a week, with practice in feeding and dairy work, and keeping records of the herd.

PROF. BEACH.

NATURAL SCIENCES.

"Science is certainty, is truth found out."—*Coles.*

1. Zoology is taken the Senior year, and is begun with the study of Entomology in the summer term. Students make collections of illustrative subjects.

2. In Geology the students take up the general principles of the subject, distribution of life upon the earth, coal beds, peat formation, action of air and water, heat, study of the rocks, mountain-making, formation of veins, and the animal and vegetable kingdoms as related to Geology.

PROF. KOONS.

CIVIL GOVERNMENT.

"Government is a trust, and the officers of the government are trustees; and both trusts and trustees are created for the benefit of the people."—*Henry Clay.*

The Constitution of the United States and of Connecticut

are critically studied. Departments of the Federal Government, and their functions, are discussed. State Departments, loyalty to the State and nation are emphasized as important principles for the student's preparation for the franchise.

PROF. KOONS.

POLITICAL ECONOMY.

"A creative economy is the fuel of magnificence."—*Emerson.*

Wealth, production, labor, capital, value, money, bi-metalism, commerce, demand and supply, credit, distribution, wages, taxation, banking, protection, free trade, socialism, etc., are considered among the most important topics for the student's attention.

PROF. KOONS.

MATHEMATICS.

"Mathematics makes men subtle."—*Bacon.*

1. Arithmetic, Preparatory Department, five hours a week during the year.

MRS. BALLOU.

2. Algebra, Sophomore class, Quadratic Equations, Ratio and Proportion, Binomial Theorem, and the use of Logarithms, as a preparation for the study of Plane Geometry.

PROF. WHEELER.

3. Solid Geometry, Junior class, fall term, including Theorems of Lines and Planes in space, and Polyhedrons; Spherical Geometry, as applied to Surveying and Mensuration.

PROF. WHEELER.

4. Trigonometry, functions of angles, derivation of formulae, and the solution of right and oblique triangles.

PROF. WHEELER.

5. Surveying, Senior class, spring term, one hour a week in out-of-door practice; the study of roads, and road materials, cost of construction, etc.

SUMMARY.

First year, Algebra, four hours a week, three terms.

Second year, Plane Geometry, four hours a week, three terms.

Third year, Solid Geometry, three hours a week, fall term.

Plane and Spherical Trigonometry, three hours a week, winter term.

Surveying and Road-making, three hours a week, spring term.

PROF. WHEELER.

BOTANY.

"When daisies pied, and violets blue,
And lady smocks all silver white,
And cuckoo-buds of yellow hue
Do paint the meadows with delight."—*Shakespeare*.

1. Freshman class, five hours a week, during the year. Structural, Physiological, Analytical Botany, herbariums of fifty specimens of wild plants prepared by the students. Text-book, Kellerman's Elementary Botany with Spring Flora.

2. Senior class, four hours a week, winter term, in Cryptogamic Botany, and Fungous Diseases of Plants, with microscopic work.

PROF. BALLOU.

ANATOMY AND PHYSIOLOGY.

"Good health and good sense are two of life's greatest blessings."—*Publius*.

1. Freshman class, three hours a week, winter and spring terms, with laboratory work one and one-half hours a week, and Sophomore class, two hours a week. The study comprises the animal cell, as a unit of structure of the body, tissues of the body, bones, muscles, nerves, blood-vessels,—their structure and uses, based on Martin's Human Body, as a text.

2. Veterinary Science, during Sophomore and Junior years, five hours a week for three terms by lectures; remedies, surgery, veterinary obstetrics, with illustrations from skeletons and living animals, suffering from injuries and disease.

DR. MAYO.

MECHANICS.

"The carpenter drives his plane — the tongue of his fore-plane whistles its wild, ascending lisp."—*Whitman*.

"And the smith his iron measures, hammered to the anvil's chime."—*Longfellow*.

1. Sophomore class, wood-work, three hours a week; use and care of tools. Winter term.

2. Junior class, Mechanical Drawing, two hours a week. Winter term.

3. Senior class, Mechanical Drawing, two hours a week; Iron-work, two hours a week; forging, welding, and tempering tools, repairing, etc. Winter term.

PROF. PATTERSON.

DOMESTIC SCIENCE.

"We may live without friends; we may live without books; But a civilized man cannot live without cooks."—*Owen Meredith*.

Cookery, sewing, laundrying, and dressmaking, theoretical and practical; preserving fruits and jellies, making pickles, setting and serving tables, home hygiene and sanitation, home nursing; prevention and care of contagious diseases; chemistry of foods, and economic value of common foods, are subjects in which the young ladies become well versed.

MRS. WHEELER.

MUSIC.

"Of all the arts, great music is the art
To raise the soul above all earthly storms."—*Leland*.

1. Freshman class, one hour a week, fall and winter terms, in Cole's Sight Seeing, formation of the scale, and recitals.

2. Half-hour lessons a week on the piano to all students desiring it, in the New England Conservatory course. No charge except for books and sheet music.

MISS LINCOLN.

MILITARY SCIENCE.

"He stands erect; his slouch becomes a walk,
He steps right onward, martial in his air,
His form and movement."—*Cowper*.

1. Freshman class, one hour a week, fall term. "Drill Regulations."

2. Junior class, one hour a week, spring term. "Drill Regulations."

3. Senior class, one hour a week, one term. Lectures upon explosives and projectiles; field fortifications, permanent fortifications, logistics, and camps.

PROF. BALLOU.

CADET UNIFORMS.

Military drill is obligatory. Therefore, each male student is required to procure for himself a blue military suit, at a cost of about \$15 for coat, pantaloons, and cap. No student is excused from this exercise except for physical disability, in which case a physician's certificate is required. All absences from drill shall be made up. The cadets take full care of their military equipments.

EXTENSION DEPARTMENT.

"Reading maketh a full man." — *Bacon*.

The object of this Department is to extend the "sphere of influence" of the College by home study, which, if rightly continued, will prove a boon to the State.

COURSE OF STUDY.

FIRST YEAR.

For Women.

Floriculture.
Domestic Science.
General Science.
Botany.

For Men.

Agriculture.
Agricultural Chemistry.
General Science.
Botany.

SECOND YEAR.

For Women.

The Way we did at the Cooking School.
Hygiene and Physiculture, or Physical Development.
Realm of Nature, Part I.
The Story of Germ Life.

For Men.

The Principles of Fruit Growing, or Milk and its Products.
The Spraying of Plants, or Farmers' Bulletins.
Realm of Nature, Part I.
The Story of Germ Life.

PROPOSED OUTLINE OF STUDY.

PREPARATORY YEAR.

NOTE.—The numbers refer to the periods per week.

FALL TERM.

Arithmetic,	5	Algebra,	4
U. S. History,	5	English,	5
Geography,	5	History,	2
English,	4	Chemistry,	5
Botany,	3	Drawing,	2
Singing,	1	Singing,	1
Military Drill,	3	Military Drill,	3

Afternoons:—Drawing.

WINTER TERM.

Arithmetic,	5	Algebra,	4
U. S. History,	4	English,	5
English,	4	Botany,	5
Botany,	3	History,	2
Singing,	1	Drawing,	2
Military Drill,	3	Military Drill,	3

Afternoons:—Laboratory Work.

SPRING TERM.

Arithmetic,	5	Algebra,	4
U. S. History,	4	English,	5
English,	4	Botany,	5
Botany,	3	History,	2
Singing,	1	Drawing,	2
Military Drill,	3	Military Drill,	3

Afternoons:—Laboratory Work.

Rhetoricals once each term.

SOPHOMORE YEAR.

FALL TERM.

Geometry,	4	Geometry,	4
English,	5	English,	5
Chemistry,	4	Chemistry,	3
Agriculture,	3	Agriculture,	3
Physics,	2	Physics,	2
History,	2	History,	2
Military Drill,	3	Military Drill,	3

Rhetoricals once each term.

FRESHMAN YEAR.

FALL TERM.

Algebra,	4	Geometry,	4
English,	5	English,	5
Botany,	5	History,	3
History,	2	Mechanical Drawing,	2
Drawing,	2	Poultry Keeping,	2
Singing,	1	Physics,	2
Military Drill,	3	Military Drill,	3

Afternoons:—Laboratory Work.

WINTER TERM.

Algebra,	4	Geometry,	4
English,	5	English,	5
History,	3	History,	3
Mechanical Drawing,	2	Poultry Keeping,	2
Poultry Keeping,	2	Physics,	2
Physics,	2	Military Drill,	3

Afternoons:—Laboratory Work.

SPRING TERM.							
Geometry,		4	Zoology,	5			
English,		5	Veterinary Science,	5			
Agriculture,		3	English,	4			
Cryptogamic Botany,		3	Military Drill,	3			
Physiology,		5	Afternoons:— Laboratory Work.				
Military Drill,		3	Senior Addresses.				
Afternoons:— Laboratory Work.							
Rhetoricals once each term.							
JUNIOR YEAR.							
FALL TERM.							
Physics,		4	Mathematics, two terms,	5			
Book-keeping,		2	English Lit., one term,	5			
Horticulture,		3	Physics, one term,	5			
English,		4	Political Economy, one term,	3			
Solid Geometry,		3	Zoology, one term,	2			
Agriculture,		4	History, one term,	5			
Military Drill,		3	Afternoons:— Laboratory Work.				
Afternoons:— Laboratory Work.							
WINTER TERM.							
English,		4	Senior Addresses.				
Trigonometry,		3	AGRICULTURAL.				
Book-keeping,		1	Agriculture, two terms,	5			
Mechanical Drawing,		2	English, one term,	5			
Agriculture,		5	Chemistry, one term,	5			
Horticulture,		5	Veterinary Science, one term,	5			
Military Drill,		3	Bacteriology, one term,	5			
Afternoons:— Laboratory Work.							
SPRING TERM.							
Chemistry,		5	Political Economy, one term,	3			
English,		4	Afternoons:— Laboratory Work.				
Surveying,		2	Senior Addresses.				
Civil Government,		3	HORTICULTURAL.				
Agriculture,		3	Horticulture, two terms,	5			
Zoology,		3	English, one term,	5			
Military Drill,		3	Bacteriology, one term,	5			
Afternoons:— Laboratory Work.							
Rhetoricals once each term.							
SENIOR YEAR.							
FALL TERM.							
Geology,		5	SUMMER TERM.				

LIST OF TEXT-BOOKS.

- Feeds and Feeding, Henry.
Milk and its Products, Wing.
Stock Breeding, Miles.
Soils and Crops, Hunt and Morrow.
The Soil, King.
Fertility of the Soil, Roberts.
Inorganic Chemistry, Avery.
Elements of Chemistry, Williams.
Organic Chemistry, Remsen.
Qualitative Chemistry, Lectures.
Quantitative Chemistry, Evans.
American Fruit Culturist, Thomas.
Gardening for Profit, Henderson.
Elementary Botany with Spring Flora, Kellerman.
Practical Studies in Elementary Botany, Kellerman.
Lessons and Manual of Botany, Gray.
Physics, Gage.
A Text-book of Physics, Wentworth and Hill.
Ornamental Gardening, Long.
Dairy Bacteriology, Russell.
Laboratory Manual of Physics, Evans.
Physical Mathematics, Bourgouignon.
Grammar School Arithmetic, Walsh.
Essentials of Algebra, Wells.
Plane Geometry, Pettee.
Solid Geometry, Wentworth.
Surveying, Wentworth.
English Grammar, Sheldon.
Composition and Rhetoric, Waddy.
Foundations of Rhetoric, Hill.
English Literature, Brooke.
Introduction to English Literature, Pancoast.

- Lessons in Vocal Expression, Curry.
Introduction to American Literature, Brander Matthews.
From Chaucer to Arnold, George.
Elements of Ethics, Muirhead.
Elements of Morals, Janét.
Text-book of Geology, Dana.
Political Economy, Laughlin.
Civil Government, Martin.
Physiology and Hygiene, Martin.
United States History, Montgomery.
Student's History of the United States, Channing.
Bookkeeping, Student's Outfit No. 6, Ellis.
Sight-Singing, Cole.
The Academy Song Book, Levermore.
Boston Cook Book, Lincoln.
U. S. Army Infantry Drill Regulations.
New Manual of Arms.

COMMENCEMENT EXERCISES, WEDNESDAY,
JUNE 15, 1898.

PROGRAM

10.00 A. M., in the College Chapel.

MUSIC:

College Orchestra, . Cassandra Overture, *T. H. Rollinson*

PRAYER.

MUSIC:

College Orchestra, "The Hunter's Joy." *Gruenwald, Op. 266*

HARRY LUCIAN GARRIGUS, "The State College and the Farmer"

DENNIS JULIAN BURGESS, "The Lucky Farmer"

CHARLES SIDNEY CHAPMAN, "Good Marines"

CHARLES STODDARD FRANCIS, "Our Changing Earth"

WALTER STANLEY GILLETTE, "Cuba and its People"

MUSIC:

Duet for Violin and Cello, . . "Serenade." *J. Litt'l*

WILLIS NICHOLS HAWLEY, "Make the Farm Pay"

HERBERT KIRKPATRICK, "Spraying"

EDWIN SHEPARD MANSFIELD, "The Local Fair and the Fruit Grower"

HERMON FREDERICK ONTHRUP, "Good Roads and the Farmer"

MAX SCHAFFRATH, "German Village Life"

MUSIC:

College Orchestra, "Columbus Fantasia." by *E. S. Thornton, arr.*

CLINTON GOLD SMITH, "Toxins and Anti-Toxins"

GEORGE ERNEST SMITH, "The Farmers and the Growing City"

NORMAN JAMES WEBB, "Our Literary Societies"

JOSEPH WILLIAM PINCUS, "The Little Russian Peasants"

MUSIC:

College Orchestra, . . . "Tadella Overture." . . . *Wm. Bendix*Honor positions on the program given for } 1st—JOSEPH W. PINCUS
highest standing during College Course . . . } 2d—HARRY L. GARRIGUS

AFTERNOON EXERCISES.

1.15 o'clock.

Exhibition Military Drill on Parade Grounds.

2.30 o'clock.

MUSIC, *Theo. Bendix*
"American Fantasia."

ADDRESS, REV. J. L. PITNER, of Norwich, Conn.

MUSIC, *Rollinson*
"Approach of Dawn."

CONFERRING OF DIPLOMAS,

AWARDING OF THE RATCLIFFE HICKS PRIZES.

MUSIC, *Kerry Mills*
"Happy Days in Dixie."

ROSTER OF STUDENTS.

Class of '98.

Dennis Julian Burgess, . . .	Mansfield, Tolland Co.
Charles Sydney Chapman, . . .	Hartford, Hartford Co.
Charles Stoddard Francis, . . .	Newington, Hartford Co.
Harry Lucian Garrigus, . . .	Waterbury, New Haven Co.
Walter Stanley Gillette, . . .	North Haven, New Haven Co.
*Willis Nichols Hawley, . . .	Hawleyville, Fairfield Co.
Herbert Kirkpatrick, . . .	Cromwell, Middlesex Co.
Edwin Shepard Mansfield, . . .	North Haven, New Haven Co.
Herman Frederick Onthrup, . .	Middletown, Middlesex Co.
Joseph William Pincus, . . .	Colchester, Tolland Co.
Max Schaffrath, . . .	Waterbury, New Haven Co.
Clinton Gold Smith, . . .	Litchfield, Litchfield Co.
George Ernest Smith, . . .	North Haven, New Haven Co.
Norman James Webb, . . .	Plymouth, Litchfield Co.

Senior Class.

1899.

Selma Alida Carlson, . . .	Vernon, Tolland Co.
Frank Dexter Clapp, . . .	East Windsor, Hartford Co.
Roscoe Hoskins Gardner, . . .	Rocky Hill, Hartford Co.
Irwin Edson Gilbert, . . .	Deep River, Middlesex Co.
Arthur Franklin Green, . . .	Mansfield, Tolland Co.
Ida Louisa Hobby, . . .	Mansfield, Tolland Co.
Willard Whittaker James, . . .	North Windham, Windham Co.
Elsie Sophia Leach, . . .	Plymouth, Litchfield Co.
Willard Ernest Mason, . . .	Mansfield, Tolland Co.
Edward Francis Manchester, . .	Bristol, Hartford Co.
George Harry Miner, . . .	Vernon, Tolland Co.
Willis Mills Nettleton, . . .	Washington Depot, Litchfield Co.
Bertha May Patterson, . . .	Storrs, Tolland Co.
Clarence Dwight Smith, . . .	Westminster, Windham Co.
Benjamin Hovey Walden, . . .	Scotland, Windham Co.
Cassius Way, . . .	Gilead, Tolland Co.
Elmer Clinton Welden, . . .	Scotland, Windham Co.
Katherine Rosetta Yale, . . .	Meriden, New Haven Co.

* Died at Philadelphia, November 19, 1898. First Sergeant, Company H, Third Regiment, Connecticut Volunteers.

Junior Class.**1900.**

Frederick Joseph Baldwin,	Watertown, Litchfield Co.
Edwin Stanley Bishop,	Clintonville, New Haven Co.
Marie Carrie Brown,	Vernon Center, Tolland Co.
Herman Deane Edmond,	Westminster, Windham Co.
Harry David Emmons,	Plymouth, Litchfield Co.
Charles Sylvester Fitts,	East Windsor Hill, Hartford Co.
Gertrude Eliza Grant,	Mount Hope, Tolland Co.
Anna Christina Jacobson,	Gurleyville, Tolland Co.
Irving Charles Karr,	West Haven, New Haven Co.
Edith Sara Latimer,	West Simsbury, Hartford Co.
Lena Eliza Latimer,	West Simsbury, Hartford Co.
Christie Jennie Mason,	Mansfield, Tolland Co.
Eva Belle Mason,	Mansfield, Tolland Co.
Edna Mabel Nason,	Gurleyville, Tolland Co.
Albert Vincent Osmun,	Danbury, Fairfield Co.
Arthur Wallace Pettee,	Salisbury, Litchfield Co.

Sophomore Class.**1901.**

Lester Townsend Banks,	Stepney Depot, Fairfield Co.
Jessie Rebecca Barnes,	Collinsville, Hartford Co.
Joseph Howard Blakeslee,	Plymouth, Litchfield Co.
Edwin Pike Brown,	Vernon Center, Tolland Co.
Robert Ellis Buell,	Gilead, Tolland Co.
Clarence Norton Case,	Hartford, Hartford Co.
Arthur Nathaniel Clark,	Old Saybrook, New London Co.
William Wallace Dimock,	Merrow, Tolland Co.
Theodore Francis Downing,	North Windham, Windham Co.
Charles Wentworth Fairchild,	Nichols, Fairfield Co.
Bennett Almond Galpin,	Woodbury, Litchfield Co.
Joseph George Kirschbaum,	Waterbury, New Haven Co.
Elia Tom Kizirian,	Storrs, Tolland Co.
Frederick Henry Plumb,	Nichols, Fairfield Co.
Frederick William Pratt,	Deep River, New London Co.
Walter Franklin Thorpe,	North Haven, New Haven Co.
John Hamilton Vallett,	Uncasville, New London Co.
George Dana Warner,	Naugatuck, New London Co.

Freshman Class.**1902.**

Howard Linden Bushnell,	.	.	Danielson, Windham Co.
Alfred Byron Clark,	.	.	Beacon Falls, New Haven Co.
Frank Lucas Chapman,	.	.	Preston, New London Co.
John Joseph Farrell,	.	.	Storrs, Tolland Co.
Vera Estelle Freeman,	.	.	Spring Hill, Tolland Co.
Alfred Carl Gorton,	.	.	New London, New London Co.
Leslie Ford Harvey,	.	.	Minortown, Litchfield Co.
Justin Holden, Jr.,	.	.	Norwich, New London Co.
George Herbert Hollister,	.	.	Washington, Litchfield Co.
Frederick Augustus Jackson,	.	.	Storrs, Tolland Co.
Samuel Mather,	.	.	Hartford, Hartford Co.
Jennie Maude Olin,	.	.	Plainfield, Windham Co.
Helen Eunice Watrous,	.	.	New Haven, New Haven Co.
Laura Josephine Wheeler,	.	.	Trumbull, Fairfield Co.

Special Class.

Elwyn Maxson Clark,	.	.	Hampton, Windham Co.
Robert Collins Eddy,	.	.	Simsbury, Hartford Co.
Georgiana Elizabeth Flint,	.	.	Storrs, Tolland Co.
Carrie Pearl Fisher,	.	.	Storrs, Tolland Co.
Hester Clarice Hall,	.	.	Willington, Tolland Co.
Ralph Leslie Hoadley,	.	.	North Guilford, New Haven Co.
James Stewart Hunter,	.	.	Bridgeport, Fairfield Co.
Grace Elizabeth Koons,	.	.	Storrs, Tolland Co.
John Bowers Lyman,	.	.	East Hampton, Windham Co.
Hanna Bertha Squire,	.	.	Storrs, Tolland Co.
Florence Sophia Swift,	.	.	Mansfield Center, Tolland Co.
Walter Aldrich Southwick,	.	.	Mansfield, Tolland Co.
Horace George Williams,	.	.	East Hartford, Hartford Co.

Preparatory Class.

George Alonzo Bartlett,	.	.	Willimantic, Windham Co.
Stephen Mills Crowell,	.	.	Middletown, Middlesex Co.
Harry William Freeman,	.	.	Hartford, Hartford Co.
Arthur Charles Hauck,	.	.	Spring Hill, Tolland Co.
Everett Stratton Holley,	.	.	Hartford, Hartford Co.
Chester Arthur Loveland,	.	.	Glastonbury, Hartford Co.
Frank Samuel George McClean,	.	.	South Glastonbury, Hartford Co.
Alice May Nichols,	.	.	Trumbull, Fairfield Co.
Anna Elizabeth Potter,	.	.	North Guilford, New Haven Co.
Ada May Storrs,	.	.	Spring Hill, Tolland Co.
James Byron Thwing,	.	.	Wallingford, New Haven Co.
Edwin DuRand Yeomans,	.	.	Bridgeport, Fairfield Co.

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Total,	<hr/> 105

COLLEGE ORGANIZATIONS.

Literary Societies.

There are three Literary Societies, which hold meetings once a week for the purpose of improvement in writing and speaking. The Natural History Society, organized February 25, 1898, meets once in two weeks for the "Study of Nature." Papers are read, specimens examined, with talks on the same, and excursions are made to places of interest.

"Shakesperean Club."

E. C. Welden,	.	.	.	.	President.
F. J. Baldwin,	.	.	.	.	Vice-President.
B. H. Walden,	.	.	.	.	Corresponding Secretary.
L. E. Banks,	.	.	.	.	Recording Secretary.
R. E. Buell,	.	.	.	.	Treasurer.
F. J. Baldwin,	.	.	.	.	Historian.
I. E. Gilbert,	.	.	.	.	First Director.
J. N. Fitts,	.	.	.	.	Second Director.
T. F. Downing,	.	.	.	.	Third Director.

"The Alethia Society."

Marie C. Brown,	.	.	.	.	President.
Elsie S. Leach,	.	.	.	.	Vice-President.
Selma A. Carlson,	.	.	.	.	Secretary and Treasurer.
Gertrude E. Grant,	.	.	.	.	Marshal.
Edith S. Latimer,	.	.	.	.	First Director.
Lena E. Latimer,	.	.	.	.	Second Director.
Katherine R. Yale,	.	.	.	.	Third Director.

"Eclectic Literary Society."

F. D. Clapp,	.	.	.	.	President.
W. W. James,	.	.	.	.	Vice-President.
H. P. Edmond,	.	.	.	.	Recording Secretary.
A. V. Osmun,	.	.	.	.	Corresponding Secretary.
I. C. Karr,	.	.	.	.	Treasurer.
R. C. Eddy,	.	.	.	.	Marshal.

"Natural History Society."

R. D. Gilbert,	President.
Katherine R. Yale,	Secretary and Treasurer.
A. V. Osmun,	
Elsie S. Leach,	
Selma A. Carlson,	
Cassius Way,	
F. J. Baldwin,	

} Executive Committee.

"Young Men's Christian Association."

The Y. M. C. A. is a helpful organization in the formation of Christian character, good fellowship among its members, and the furtherance of a higher standard of moral living.

E. F. Manchester, '99,	President.
I. E. Gilbert, '99,	Vice-President.
F. J. Baldwin, '00,	Recording Secretary.
Prof. C. S. Phelps,	Corresponding Secretary.
B. H. Walden, '99,	Treasurer.

Chairman Prayer Meeting Committee,
I. E. Gilbert.

Chairman Membership Committee,	
	F. J. Baldwin.

COLLEGE PAPER.**"S. A. C. Lookout."**

(Published Monthly.)

W. M. Nettleton, '99,	Editor-in-Chief.
E. C. Welden, '99,	Business Manager.
A. V. Osmun, '00,	Assistant Manager.
Prof. H. A. Ballou,	Treasurer.
E. F. Manchester, '99,	College Notes.
I. E. Gilbert, '99,	Alumni Notes.
A. W. Pettee, '00,	Athletics.
T. F. Downing, '01,	Exchanges.

"STUDENT'S ORGANIZATION."

W. M. Nettleton, '99,	.	.	.	President.
E. C. Welden, '99,	.	.	.	1st Vice-President.
F. J. Baldwin, '00,	.	.	.	2d Vice-President.
A. V. Osmun, '00,	.	.	.	Secretary.
E. S. Bishop, '00,	.	.	.	Treasurer.

"Council."

W. M. Nettleton, '99,	.	.	.	President.
A. W. Pettee, '00,	.	.	.	Vice-President.
F. J. Baldwin, '00,	.	.	.	Secretary.
H. L. Bushnell, '02,	.	.	.	Marshal.

S. A. C. ATHLETIC ASSOCIATION.

Cassius Way,	.	.	.	President.
F. J. Baldwin,	.	.	.	Vice-President.
L. T. Banks,	.	.	.	Secretary and Treasurer.
Herman Edmond,	.	.	.	Keeper.

Football Team, '98.

J. B. Lyman,	.	.	.	.	Captain.
H. D. Emmons,	.	.	.	.	Manager.
E. S. Mansfield, '98,	.	.	.	.	Coach.
G. H. Miner,	.	.	.	.	Referee.
B. A. Galpin,	.	.	.	.	Center.
Herman Edmond,	.	.	.	.	Right Guard.
A. W. Pettee,	.	.	.	.	Left Guard.
R. L. Hoadley,	.	.	.	.	Right Tackle.
W. M. Nettleton,	.	.	.	.	Left Tackle.
J. H. Blakeslee,	.	.	.	.	Right End.
T. F. Downing,	.	.	.	.	Right End.
W. W. James,	.	.	.	.	Left End.
J. S. Hunter,	.	.	.	.	Guard.
J. B. Lyman,	.	.	.	.	Right Half.
L. T. Banks,	.	.	.	.	Left Half.
A. B. Clark,	.	.	.	.	Fullback.

Baseball Team, '98.

E. S. Mansfield,	.	.	.	.	.	Captain.
C. S. Chapman,	.	.	.	.	.	Manager.
H. F. Onthrup,	.	.	.	.	.	Official Scorer.
E. S. Mansfield,	.	.	.	.	.	Pitcher.
A. B. Clark,	.	.	.	.	.	Catcher.
N. J. Webb,	.	.	.	.	.	First Base.
H. L. Bushnell,	.	.	.	.	.	Second Base.
W. M. Nettleton,	.	.	.	.	.	Third Base.
J. B. Lyman,	.	.	.	.	.	Short Stop.
C. E. McKenney,	.	.	.	.	.	Right Field.
D. J. Burgess,	.	.	.	.	.	Center Field.
R. P. Dewey,	.	.	.	.	.	Left Field.

Polo Team, '98.

N. J. Webb,	.	.	.	.	.	Captain.
C. S. Francis,	.	.	.	.	.	Manager.
C. S. Francis,	.	.	.	.	.	First Rush.
E. S. Mansfield,	.	.	.	.	.	Second Rush.
J. B. Lyman,	.	.	.	.	.	Center.
N. J. Webb,	.	.	.	.	.	Halfback.
W. S. Gillette,	.	.	.	.	.	Goal.

MILITARY ORGANIZATION.**Company A.**

HENRY A. BALLOU, Professor of Military Science and Tactics, Captain and Commandant.

W. M. Nettleton,	.	.	.	First Lieutenant.
R. H. Gardner,	.	.	.	Second Lieutenant.
A. W. Pettee,	.	.	.	Sergeant and Drum Major.
E. C. Welden,	.	.	.	
A. F. Green,	.	.	.	{ Sergeants.
G. H. Miner,	.	.	.	
B. H. Walden,	.	.	.	
F. D. Clapp,	.	.	.	
E. F. Manchester,	.	.	.	
W. E. Mason,	.	.	.	{ Corporals.
C. D. Smith,	.	.	.	
I. E. Gilbert,	.	.	.	

ALUMNI ASSOCIATION.

Arthur J. Pierpont, '95, . . . President.

Charles R. Green, '95, . . . Secretary.

M. Hibbard Parker, '93, . . . Treasurer.

One Vice-President is elected from each class upon graduation.

GRADUATES.

Class of '83.

Fred Birge Brown,	Lumber Dealer,	Mobile, Ala.
Charles Spencer Foster,	Buffer,	Terryville, Conn.
Henry Richard Hoisington, Jr.,	Farmer,	Coventry, Conn.
Burke Hough,	Chair Mfr.,	Gardner, Mass.
Arthur Sherwood Hubbard,	Emp'd in Mfy.,	Glastonbury, Conn.
Andrew Keith Thompson,	Express Agent,	New Haven, Conn.

Class of '84.

Clifford S. Barnes,	Farmer,	Burlington, Conn.
Jerry Lincoln Fenn,	Lawyer,	Hartford, Conn.
Frank S. Hubbard,	Emp'd in Mfy.,	Winsted, Conn.
Andrew Hyde,	Vet. Surgeon,	Norwich, Conn.
Fred C. Leavens,	Farmer,	Wauregan, Conn.
Samuel Q. Porter, Jr.,	Farmer,	Panora, Ill.

Class of '85.

Robert A. Ayer,	Lumberman,	Olympia, Wash.
Horace S. Eaton,	Farmer,	Fairfax, Vt.
Frank E. Fenner,	Merchant,	Waterbury, Conn.
Archer C. Ford,	Orchardist,	Grand Pass, Oregon.
Royal E. Meyers,	Med. Student,	Baltimore, Md.
Isaac B. Wakeman,	R. E. D. & Bkr.,	149 Broadway, N. Y.

Class of '86.

John H. Atkins,	Farmer,	Middletown, Conn.
Eugene A. Bailey.*		
Edgar S. Blair,		Address not known.
Wilbur L. Chamberlain,		Storrs, Conn.
Fred T. Coe,	Bookkeeper,	93 Camp St., Meriden, Ct.
John H. Gardner, Jr.,	Vet. Surgeon,	Norwich, Conn.
Henry R. Hayden, Jr.,	Architect,	Northampton, Mass.
Selden W. Hayes,	Asst. Prin. Farm Sch.,	Hartford, Conn.

* Died Sept. 18, 1895, at Loveland, Col.

Bruce Hough,	Chair Mfr.,	West Gardner, Mass.
Edgar J. Leavenworth,	Farmer,	Ansonia, Conn.
John B. Perry,	Farmer,	Clark's Falls, Conn.
Arthur L. Reed,	Forem. on Farm,	Mansfield Depot, Conn.
Fred A. Robinson,	Dentist,	Shanghai, China.
Ira B. Smith,	Salesman,	Pensacola, Fla.

Class of '87.

Dexter E. Hall,	Salesman,	Box 1382, Meriden, Ct.
William J. Irwin,	Emp. in Mfy.,	15 Oak St., Hartford, Ct.
William S. Lee,	Farmer,	Hanover, Conn.
Sidney H. Perry,	Salesman,	Danielson, Conn.
Edward F. Weed,	Supt. of R. E.,	Rowayton, Conn.
John W. Yeomans,	Emp. in Mfy.,	Hopedale, Mass.

Class of '88.

Willette Lincoln Alley,	Butcher,	Banksville, Conn.
Wesley Roswell Coe,	Instr. at Yale,	2 Hillhouse Ave., New Haven, Conn.
Henry Bacon Hubbard,	Bookkeeper,	21 Orman Place, Brooklyn, N. Y.
George Henry Knowles,	Gardener,	Ellington, Conn.
Keeney B. Loomis,	Farmer,	So. Manchester, Conn.
Harry Lincoln Quinlin.*		
Charles William Roberts,	Farmer,	Middletown, Conn.
Clarence Henry Savage,	Farmer,	Storrs, Conn.
Charles Augustus Wheeler,	Instructor,	Storrs, Conn.

Class of '89.

Merton Chapman,	Nurse,	Groton, Conn.
Samuel Hart Deming,	Cream Gatherer,	Box 24, Farmington, Ct.
Fred Alfred McKenzie,	Signal Service,	7th Corps, U. S. A., Jacksonville, Fla.

Class of '90.

Ernst Hamilton Brandt,	Mgr. Rubber Works,	18 So. St., Mt. Vernon, N. Y.
Merrill Everett Brown,	Shipping Clerk,	68 Huntington St., New London, Conn.
Charles James Gilmore,		Address not known.
Wilbur Lionel Goodenough,	Salesman,	Winchester Center, Ct.
Latham Hull,	Stock Breeder,	No. Stonington, Conn.

* Died Feb. 24, 1893, at Newfield, Conn.

John Hunter Lacke,	Lawyer,	177 Montague St., Brooklyn, N. Y.
Carlton Elbert Lane,	Grain Dealer,	481 E. Main St., Meriden, Conn.
Clarence Bronson Lane, George Neth,	Asst. in Expt. Sta., Electrician,	New Brunswick, N. J. 59 Seymour St., Hartford, Conn.
Charles Backus Pomeroy, Jr.,	Farmer,	Willimantic, Conn.
Robert Garland Shepard,	Fruit Grower,	Address not known.
Adolph Carl Sternberg,	Farm Supt.,	W. Hartford, Conn.
Willis LeRoy Wetmore,		Winchester, Conn.

Class of '91.

Herbert Porch Caldwell,	Salesman,	234 Putnam St., Hartford, Conn.
Charles Vibert Chandler,	Grocery Clerk,	So. Windsor, Conn.
Walter Ernest Cummings,	Farmer,	Spring Hill, Conn.
James Sumner Fowler,	Fruit Grower,	Florida.
John Carter Frisbie,	Farmer,	Southington, Conn.
Alfred Herbert Griswold,	Mechanic,	New Britain, Conn.
Arthur Gilbert Hall,	Salesman,	104 So. Colony St., Meriden, Conn.
Harry Grant Manchester,	Farmer,	West Winsted, Conn.
George Henry Merwin,	Farmer,	Greenfield Hill, Conn.
Fred Rosebrooks,	Farmer,	Willimantic, Conn.
Walter Lyman Rosebrooks,		So. Coventry, Conn.
Charles Herbert Vibert,	Farmer,	Meriden, Conn.
Allen Rice Yale,	Farmer,	Meriden, Conn.

Class of '92.

Charles George Allen,	Bookkeeper,	Turnerville, Conn.
Seth Herbert Buell,	Student,	Oberlin, Ohio.
Aaron William Fenn,	Farmer,	Plymouth, Conn.
Henry Edward French,	Salesman,	Hartford, Conn.
George Henry Hall,	Salesman,	Manchester, Conn.
Walter Holden,	Salesman,	6 Franklin St., Norwich, Conn.
Walter Francis Schultz,	Student,	Madison, Wis.
Herbert Edmund Warner,	Asst. and Student in Sanitarium,	Battle Creek, Mich.

Class of '93.

Ernest Treat Beard,	Farmer,	Milford, Conn.
Walter Harley Bishop,	Farmer,	North Haven, Conn.
Charles Henry Brimble,		150 Allyn St., Hartford, Ct.
Frederick William Darnstedt,	Electrician,	Broad St., Hartford, Ct.
William Bailey Dayton,	Farmer,	Plantsville, Conn.
Walter Morgan Dunivan,	Clerk,	Gen. Delivery, New Y'k.
Charles Wells Eddy,	Civil Engineer,	Simsbury, Conn.
Edward Blodgett Fitts,	Farmer,	E. Windsor Hill, Conn.
William James Frey,	Bookkeeper,	Box 306, Hartford, Ct.
Martin Moore Frisbie,	Farmer,	Southington, Conn.
Harvey Clark Harrison,	Farmer,	Northford, Conn.
Frank Curtis Osborne,		New York City.
Martin Hibbard Parker,	Farmer,	South Coventry, Conn.
Homer Gurley Sperry,	Farmer,	Bolton, Conn.
Walter Arnold Warren,	Asst. in Hort. Dept., Storrs, Conn.	

Class of '94.

Charles H. Brimble,*		150 Allyn St., Hartford, Ct.
Hobart James Brockett,	Farmer,	Montowese, Conn.
Seth Herbert Buell,*	Student,	Oberlin, Ohio.
John Carter Frisbie,*	Farmer,	Southington, Conn.
Harvey Clark Harrison,*	Farmer,	Northford, Conn.
Martin Hibbard Parker,*	Farmer,	South Coventry, Conn.
Louise Jane Rosebrooks,		New York City.
Walter Francis Schults,*	Student,	Madison, Wis.
Anna Mabel Fitts, nee Snow,		East Windsor Hill, Ct.
Herbert Edmund Warner,*	Student and Asst. in Sanitarium,	Battle Creek, Mich.
Walter Arnold Warren,*	Asst. in Hort. Dept., Storrs, Conn.	
Nellie Louise Bingham, nee Wilson,		Mansfield, Conn.

Class of '95.

Francis Ariel Bartlett,	Farmer,	Simsbury, Conn.
Charles Stoddard Francis,	Soldier, 3d Regt. Conn. Vols.	
Martin Moore Frisbie,*	Farmer,	Southington, Conn.
Charles Robert Green.	Mailing Clerk,	161 Seymour St., Hartford, Conn.
George Ransom Hall,	Soldier, 1st Regt., Conn. Vols.	
William App Richard Hawley,	Teacher,	New Canaan, Conn.
Arthur Clayton James,	Farmer,	No. Windham, Conn.

* Post Graduates.

Arthur Joseph Pierpont,	Farmer,	Waterbury, Conn.
Arthur Edward Shedd,	Farmer,	Preston, Conn.
William Alonzo Stocking, Jr.,	Instructor,	Mansfield, Pa.
Arthur Hatch Sturdevant,*	Farmer,	Bridgewater, Conn.
Albert Buckingham Tyler,	Farmer,	Bristol, Conn.

Class of '96.

Howard Grant Barber,	Teacher,	Union, Conn.
Grace Emily Blakeman,	Bookkeeper,	Storrs, Conn.
Olive Nicholson Clark,	Housekeeper,	Old Saybrook, Conn.
Albert Ernest Coles,	Farmer,	Rockfall, Conn.
Clayton Theron Curtis,	Farmer,	East Glastonbury, Ct.
John Harry Evans,	Clerk,	Thompson, Conn.
Ethel Eugenia Freeman,	Clerk,	Chaplin, Conn.
Olcott Frederick King,	Clerk,	Hartford, Conn.
Grace Edith Snow,	Teacher,	Jewett City, Conn.
Leroy Minor Tucker,	Farmer,	Middletown, Conn.
Ernest Henry Waite,	Clerk,	Middletown, Conn.

Class of '97.

Harry E. Atwood,	Farmer,	Kensington, Conn.
Robert D. Beardsley,	Clerk,	Plymouth, Conn.
Frederick N. Buell,	Soldier, 3d Regt.	Conn. Vols.
Fred F. Bushnell,	Student,	Ithaca, N. Y.
Francis Comber,	Clerk,	Elmwood, Conn.
John N. Fitts,	Fireman,	Storrs, Conn.
Charles L. Foskett,	Farmer,	Winsted, Conn.
Erma L. Fuller,	Teacher,	Mansfield, Conn.
Albert C. Gilbert,	Asst. in Exp. Sta.,	Storrs, Conn.
Arthur O. Green,†	Lecturer,	Winchester Ctr., Conn.
Grove H. Johnson,	Clerk,	Boston, Mass.
Victor E. Luchinni,	Farmer,	New Britain, Conn.
Harry B. Luce,	Farmer,	So. Glastonbury, Conn.
Benjamin S. Taylor,		

Graduates, upon changing their address, are requested to communicate with the President, that the above list may be kept accurate, and the aid of class secretaries and all others is solicited, that it may be properly revised each year.

* Died, November, 1898.

† Died, April, 1898, at Hartford, Conn.

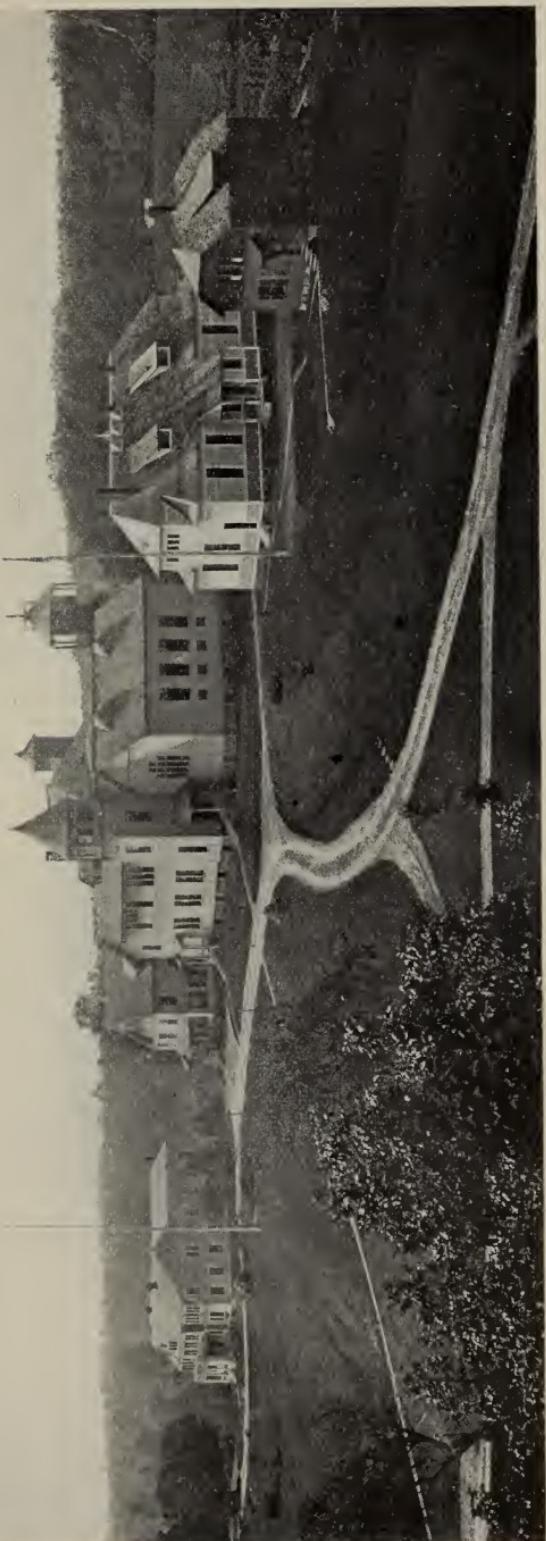
SUMMARY.

Whole number of students graduated up to 1898, one hundred and forty-eight, of whom seven are women.

Farmers,	56	Salesmen,	8
Manufacturers,	7	Clerks,	10
In Trade,	4	Dentist,	1
Buffer,	1	Signal Service,	1
Express Agent,	1	Electricians,	2
Lawyers,	2	Civil Engineer,	1
Vet. Surgeons,	2	Lecturer,	1
Medicine,	1	Liveryman,	1
R. E. Dealer and Broker, .	1	Soldiers,	2
Bookkeepers,	5	Nurse,	1
Architect,	1	Students,	5
Teachers,	8	Housekeeper,	1

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STORRS COLLEGE



MAIN COLLEGE BUILDING

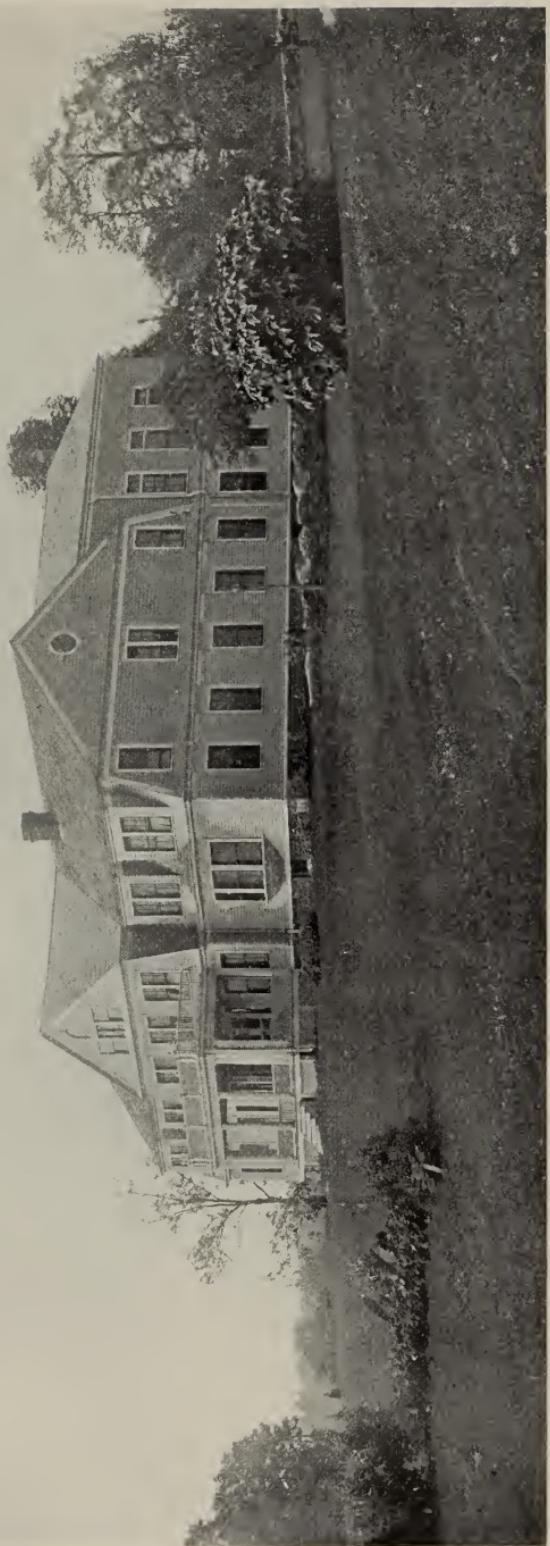
STORRS COLLEGE—REAR VIEW



REAR VIEW WITH LAKE—1898



GROVE COTTAGE



GROVE COTTAGE—ENTRANCE HALL



I GROVE COTTAGE—PARLOR





CHEMICAL LABORATORY AND EXPERIMENT STATION OFFICE

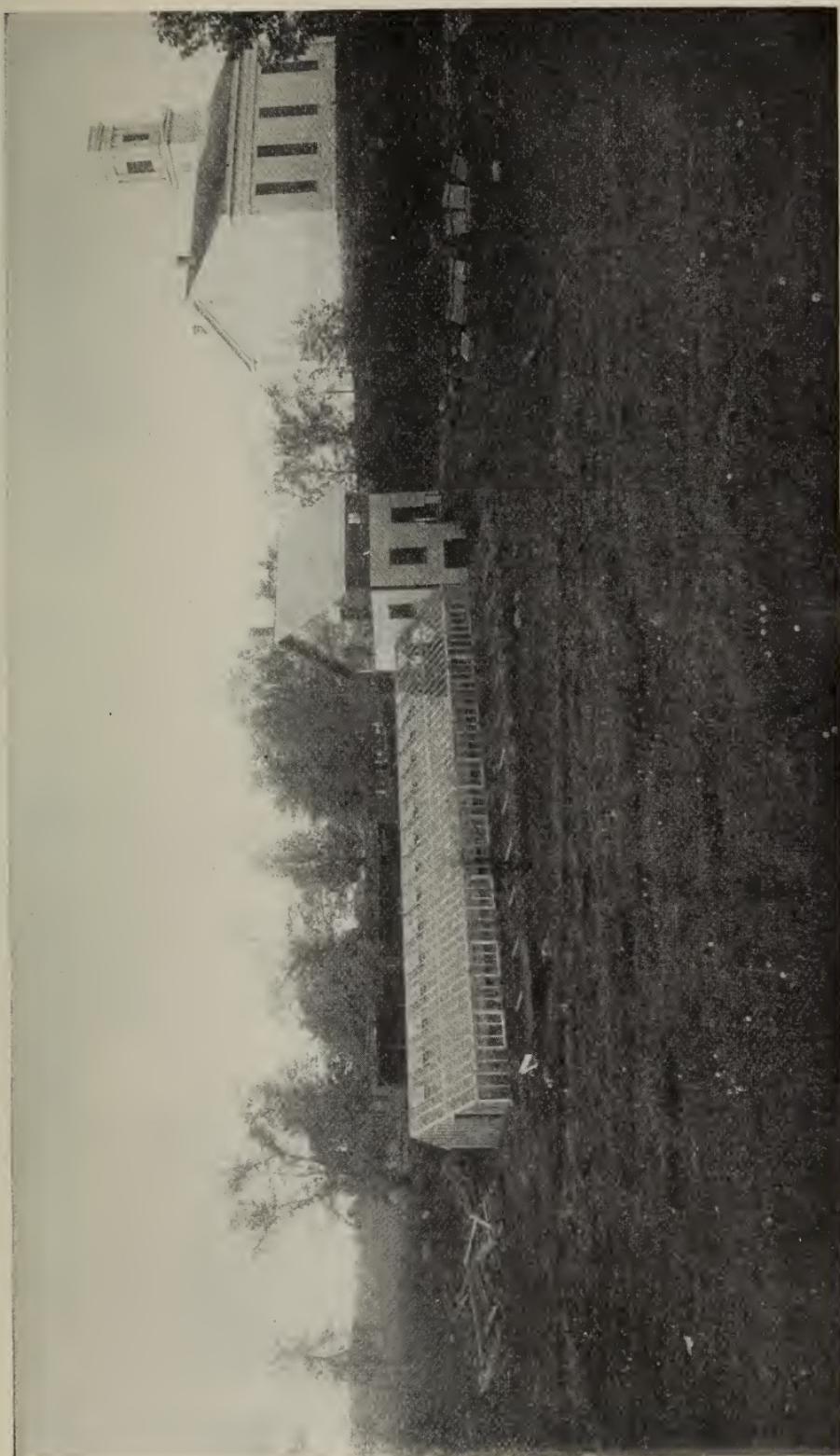
INTERIOR OF CHEMICAL LABORATORY



DRAWING CLASS



GREENHOUSE



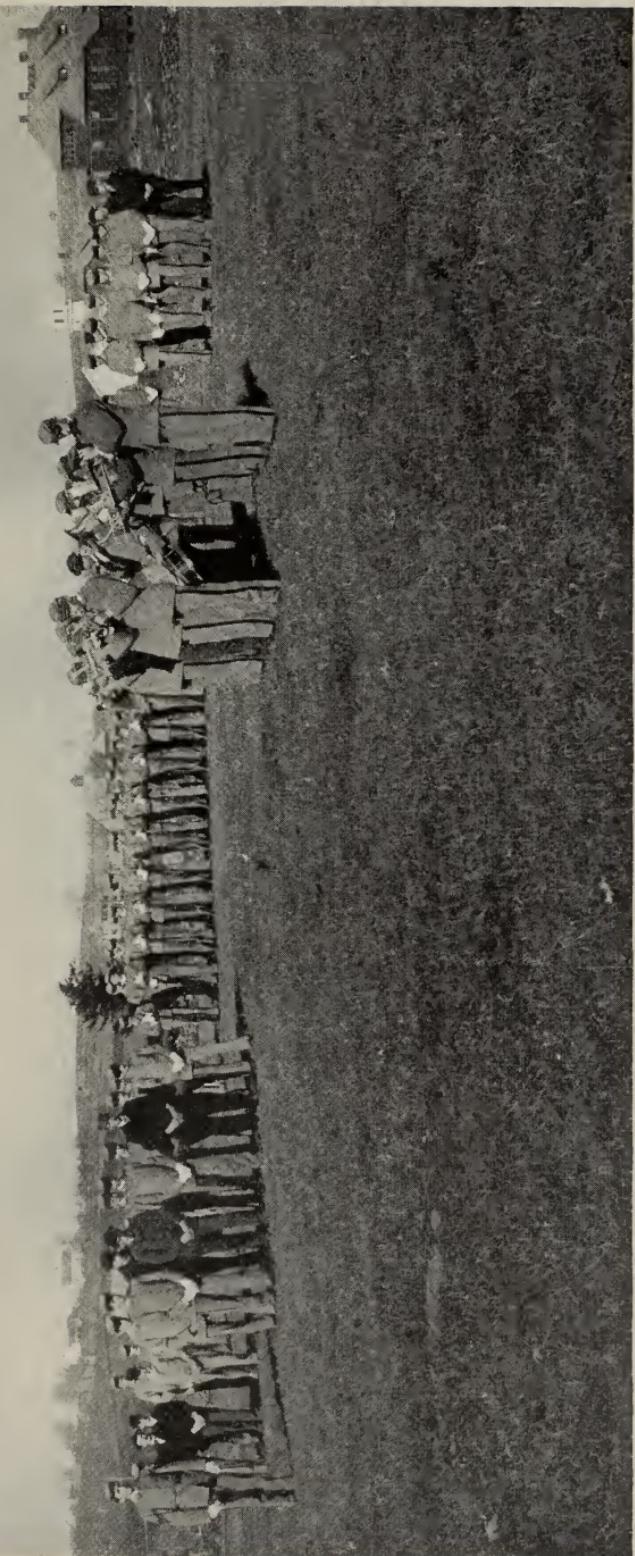
INTERIOR OF GREENHOUSE



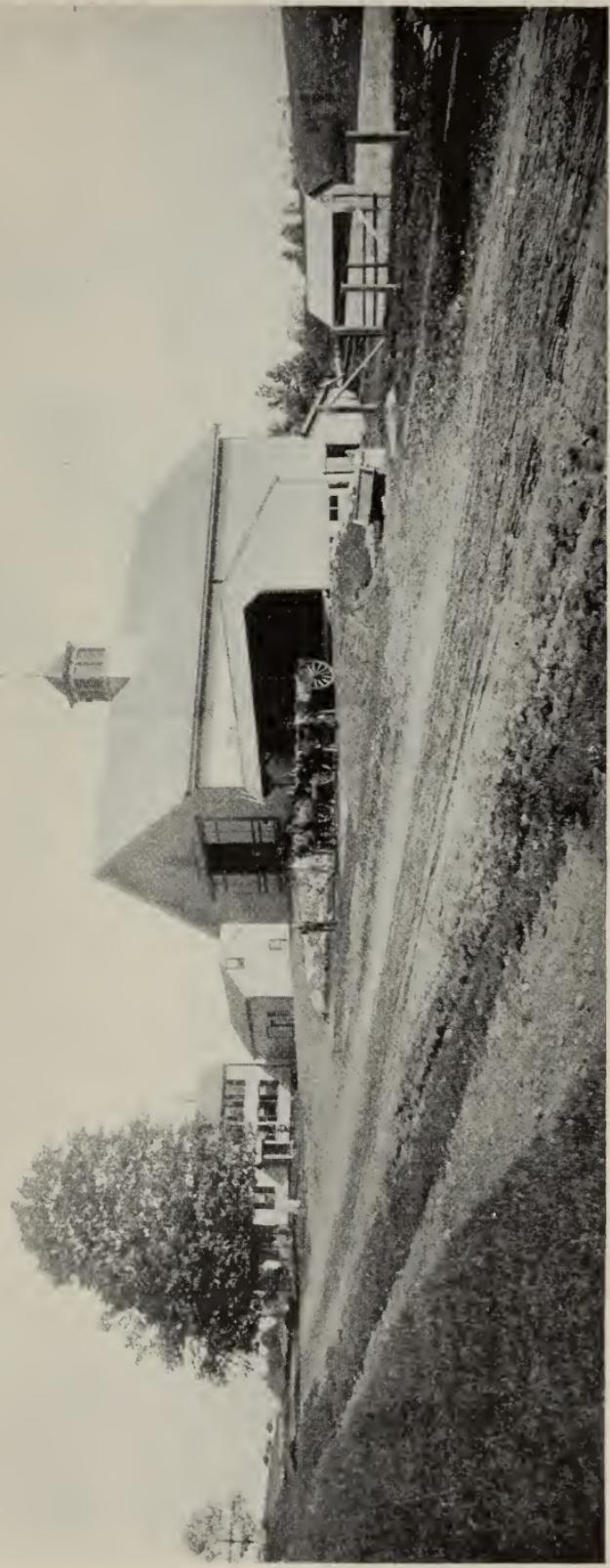
COTTAGE NO. 2, ERECTED 1898



MILITARY COMPANIES



FARM HOUSE AND BARN



STORRS COLLEGE HERD - 1898



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